## **HEARINGS**

BEFORE THE

# COMMITTEE ON MERCHANT MARINE AND FISHERIES HOUSE OF REPRESENTATIVES

**NINETY-SEVENTH CONGRESS** 

ON

ADMINISTRATION OF CARGO PREFERENCE LAWS IN SALE OF BUTTER TO NEW ZEALAND

NOVEMBER 9, 1981

OCEAN RANGER COLLAPSE

MARCH 9, 1982

ADMINISTRATION OF CARGO PREFERENCE LAWS IN PURCHASE OF JAMAICAN BAUXITE

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<sup>&</sup>lt;sup>1</sup>Elected to Committee December 16, 1981.

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### ADMINISTRATION OF CARGO PREFERENCE LAWS IN SALE OF BUTTER TO NEW ZEALAND

#### MONDAY, NOVEMBER 9, 1981

House of Representatives. COMMITTEE ON MERCHANT MARINE AND FISHERIES. Washington, D.C.

The committee met, pursuant to notice, at 2 p.m., in room 1334, Longworth House Office Building, Hon. Walter B. Jones (chairman of the committee) presiding.

Present: Representatives Jones, Oberstar, and Sunia.

Also present: Edmund P. Welch, Gerald Seifert, John Long, and Stephen D. Little.

The Chairman. The committee will come to order, please.

Today, the Merchant Marine and Fisheries Committee meets to conduct an oversight hearing on the administration of the cargo preference laws.

The committee has a continuing responsibility to monitor the enforcement of these laws to make sure that they are being followed by the various Federal agencies in accordance with the intent of Congress.

I was not aware of the congressional recess when this hearing was scheduled and, therefore, that accounts for the very small number of members present, but as far as I am concerned, if we can create a record here which will serve as a guide, then our time will have been well spent.

While there are several cargo preference statutes, the one mainly at issue in this hearing is known as the Cargo Preference Act, Public Law 83-664. That law requires Federal agencies, when they ship goods abroad under certain circumstances, to make sure that at least half of those goods are transported on U.S.-flag ves-

The cargo preference statutes are not mere words. They are there for a reason. They represent a key part of our national commitment to the maintenance of a healthy U.S.-flag merchant marine. Congress has repeatedly declared that a U.S.-flag merchant fleet is vital to our economic health and to our defense.

Underlying the cargo preference statutes is the theory that when tax revenues are used in some way to finance cargoes shipped by ocean vessels, a fair amount of those cargoes should be reserved for U.S.-flag ships.

It is worth noting that the cargo preference statutes are mandatory, not discretionary. Therefore, we should expect that our Federal Government's officials carry out the letter and spirit of all our policies and laws. It is distressing to learn that when it comes to our cargo preference policies and laws, some seem to exert a great

deal of energy seeking to avoid them.

In this particular case, the Department of Agriculture has contracted to sell a large volume of Government-owned butter to New Zealand. The Department, however, made no provision in the contract for at least half of the butter to be carried on American ships. In other words, the Agriculture Department failed to apply cargo preference to the sale. We meet to consider the validity of that decision.

In addition, I am aware of several other relatively recent sales of surplus agricultural commodities by the Agriculture Department to Poland, on very favorable terms. In none of those cases was a cargo

preference requirement imposed.

One might reasonably ask whether within USDA there exists a pattern of ignoring or avoiding the cargo preference laws. Therefore, I have directed the committee staff to investigate more thoroughly these Polish sales in case our committee needs to take corrective action.

Thus, although today we will be discussing primarily Public Law 664 and its application to the sale of butter to New Zealand, this hearing will give an indication of how the cargo preference laws have been administered in other situations where they apply.

A thoughtful examination of the butter sale will be helpful, I believe, in understanding the need for a vigorous enforcement of all of the cargo preference laws, as an effective and efficient means of

assuring the strength of the U.S. merchant marine.

Today we will hear witnesses representing the Maritime Administration, the Department of Agriculture, and the steamship industries. Before they appear, however, attorneys from our staff will present their findings regarding the details of this butter sale and their legal analysis as to whether and how the cargo preference laws apply.

Mr. Seifert and Mr. Long, we are now ready for your presenta-

tion.

Mr. Seifert. Thank you, Mr. Chairman.

The staff has prepared a memorandum containing the position we have taken in regard to the fact situation presented by the transaction in which the United States of America, through the agency of the Commodity Credit Corporation, a Government organization, sold a quantity of butter to New Zealand, by its agent, the New Zealand Dairy Board, a statutorily created Government organization.

Rather than reading the memorandum in full, copies have been distributed in advance of this hearing, and we will, with the consent of the committee, summarize the contents of the memorandum dated November 5, 1981.

I understand the chairman has indicated that he will insert in

full the memorandum of this proceeding.

The CHAIRMAN. Without objection, the full memorandum will be part of the permanent record, the report.

[The information follows:]

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CONTRACTOR OF MATTER

U.S. House of Representatives

Committee on Merchant Marine and Sisperies Noon 1334, Kongtoorh House Offer Vollbing Manhington, D.C. 20515

November 5, 1981

#### MEMORANDUM

TO:

Members

Committee on Merchant Marine and Fisheries

FROM:

Committee Staff

SUBJECT:

Sale of Butter to New Zealand

#### I. INTRODUCTION

On August 5, 1981, the Commodity Credit Corporation (CCC), a federal agency, contracted to sell 100,000 metric tons of butter to the New Zealand Dairy Board (NZDB), an agency of the Government of New Zealand. CCC acquired the butter through the Agriculture Department's (USDA) dairy price-support program, and has been storing it frozen in government warehouses. The contract price for the butter is \$1500 per metric ton, or about \$0.70 per pound, FOB warehouse. On the contract date, this price was less than half the average domestic retail price of \$2.00 per pound and the support price of \$1.49 per pound. On world markets, butter was then selling for about \$1.05 per pound. Under the contract, CCC will invoice NZDB for the butter on a monthly basis, and NZDB will pay 180 days from the invoice date, without interest.

NZDB makes all shipping arrangements for the butter, without participation by or consultation with USDA or CCC. To date, NZDB has shipped or has contracted to ship over 13,000 metric tons of the butter. Only about 40 percent of this amount, however, has been or will be transported by Farrell Lines, the only U.S.-flag carrier in the New Zealand trade. Farrell Lines—and the other carriers involved in transporting the butter to New Zealand are conference members and, hence, charge the same rates. A nonconference Philippine carrier has transported 1700 tons of the butter to Europe.

<sup>1/ &</sup>quot;The Sale of Surplus Butter to New Zealand," in Congressional Research Service Review at 18 (October 1981).

<sup>2/</sup> A table showing completed and proposed butter shipments is attached as Appendix A.

Despite requests from the Department of Transportation's Maritime Administration (MARAD), USDA has refused to impose cargo preference on the butter sale. In addition, on August 14, 1981, Chairman Jones and the Ranking Minority Member Snyder jointly wrote to Secretary of Agriculture John R. Block stating their view that cargo preference did apply to the NZDB butter sale and expressing concern that the cargo preference laws were not being properly adhered to by USDA.

The statute primarily at issue, known as the Cargo Preference Act or Public Law 664,3 would require at least half of the butter to be shipped in U.S.-flag vessels. It provides:

"Whenever the United States shall procure, contract for, or otherwise obtain for its own account, or shall furnish to or for the account of any foreign nation without provision for reimbursement, any equipment, materials, or commodities, within or without the United States, or shall advance funds or credits or guarantee the convertibility of foreign currencies in connection with the furnishing of such equipment, materials, or commodities, the appropriate agency or agencies shall take such steps as may be necessary and practicable to assure that at least 50 per centum of the gross tonnage of such equipment, materials, or commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers), which may be transported on privately owned United States-flag commercial vessels. ..."

In response to Chairman Jones' and Mr. Snyder's letter, USDA stated that the Cargo Preference Act "applies only to concessional sales and not to commercial transactions." The butter sale, USDA maintains, is commercial rather than concessional because it "represent(s) the best terms and conditions obtainable under the circumstances" and is not "made to assist the economy of New Zealand." USDA concludes, therefore, that the Act does not apply.

MARAD disputes USDA's characterization of the sale as commercial, pointing out that the butter was sold at a price well below world market rates and at less than half of the Federal support price. In addition, MARAD contends that the 180-day interest-free extension of credit to NZDB takes the transaction

<sup>3/</sup> P.L. 664, 83d Cong., 2d Sess. (1954), 68 Stat. 832, 46 U.S.C.

8 1241(b)(1). The provision has been incorporated into section 901 of the Merchant Marine Act, 1936, a copy of which is attached as Appendix B.

<sup>4/</sup> Letter from Richard E. Lyng, USDA, to Hon. Walter B. Jones (September 8, 1981).

<sup>&</sup>lt;u>5</u>/ <u>Id</u>.

out of the commercial realm since it violates both standard commercial practice and USDA's general requirement of payment for goods within ten days.

By focusing only upon whether the butter sale is or is not a purely commercial transaction, however, both USDA and MARAD have overlooked the question whether the Cargo Preference Act applies to this sale simply because the United States is extending credit to NZDB. The statute clearly states that cargo preference applies "(w)henever the United States . . . shall advance funds or credits . . . in connection with the furnishing of . . . equipment, materials, or commodities" to any foreign nation. The Merchant Marine and Fisheries Committee staff submits that this unambiguous language makes the Cargo Preference Act applicable to the butter sale solely because the United States is extending credit to NZDB, irrespective of whether the transaction is commercial or concessional.

#### II. QUESTIONS PRESENTED

The questions raised by the USDA and MARAD disagreement, and by the Committee staff position, are:

- 1. Does the Cargo Preference Act apply by its plain terms to the butter sale, because the United States is extending credit to NZDB, irrespective of whether the sale is commercial or concessional?
- 2. Does the Cargo Preference Act apply to the butter sale because the sale is concessional rather than commercial?
- 3. If the Cargo Preference Act does not apply to the butter sale, should the law be amended so as to bring this and similar transactions clearly within its terms?

#### III. CONCLUSIONS

For the reasons discussed below, the Committee staff concludes that:

- 1. The extension of credit by the United States to NZDB in connection with the butter sale brings the transaction within the plain language of the Cargo Preference Act, irrespective of whether the sale is commercial or concessional.
- 2. Since the Cargo Preference Act applies by its terms, the question whether the sale is commercial or concessional is immaterial, and need not be addressed.

3. Since the Cargo Preference Act language is clear, and since it does apply in this case, amendment of the Act does not appear to be necessary. In view of the disagreement among those involved, however, and the traditional antipathy of federal agencies to cargo preference, this Committee--which is charged with overseeing the proper administration of the Act--should reiterate its intention that the Act be vigorously enforced and should condemn attempts to circumvent either the letter or the spirit of the Cargo Preference Act.

#### IV. DISCUSSION

#### A. Cargo Preference Applies Because Credit is Extended

The plain and simple language of the Cargo Preference Act makes it applicable to the butter sale to NZDB. The law states quite clearly that "(w)henever the United States . . . shall advance funds or credits . . . in connection with the furnishing of . . . equipment, materials, or commodities" to a foreign nation, the responsible federal agency shall make sure that at least half of the goods move on U.S.-flag vessels. The statutory language is neither ambiguous nor ungrammatical. It sets out four separate, distinct and completely independent categories where cargo preference must be imposed. Cargo preference applies where the United States (1) buys goods; (2) provides goods to foreign nations for free or without adequate compensation; (3) advances money or credit; or (4) guarantees the convertibility of foreign currency.

The clarity of the statutory language eliminates any need to consult other sources for an explanation of the law. The most fundamental principle of statutory construction, and one grounded in elementary common sense, is the so-called "plain meaning rule" which holds that when statutory language is plain and unambiguous on its face, contrary interpretations based upon secondary and tertiary sources must fail. In this case, USDA's apparent confusion over the clear mandate of the law, and the agency's efforts to elucidate the statutory language through references to opinions of the Attorney General appear to be nothing more than another example of

<sup>6/</sup> See CPSC v. GTE Sylvania, Inc., 447 U.S. 102, 108 (1980); Caminetti v. United States, 242 U.S. 470, 485 (1917); C. Sands, Sutherland Statutory Construction § 46.01 (4th ed. 1973).

USDA's long-standing aversion to cargo preference. 7

Even if the legislative history is consulted, however, it strongly supports the view that the four categories in which cargo preference applies are separate and distinct, and that an extension of credit to a foreign nation alone is enough to trigger application of the law. The House report unequivocally states:

"The bill applies in four kinds of situations:
(1) Where the United States procurs, contracts, or otherwise obtains for its own account equipment, materials, or commodities; (2) furnishes equipment, materials, or commodities to or for the account of any foreign nation without provision for reimbursement; (3) advances funds or credits; or (4) guarantees the convertibility of foreign currencies in connection with the furnishing of such equipment, materials, or commodities."

#### The Senate report is similar:

<sup>7/</sup> See, e.g., S. Rep. No. 2286, 87th Cong., 2d Sess. 3 (1962)

("All too often, the Senate Commerce Committee has felt, there has been evidenced in at least several of the administrative departments, an apparent desire on the part of those responsible for shipping arrangements to evade the cargo preference requirement whenever opportunity offered."); 102 Cong. Rec. A2221 (daily ed. March 12, 1956) (remarks of Sen. Butler quoting editorial from Cotton Trade Journal of February 24, 1956) ("Chief supporters of the move to void the Cargo Preference Act are the State Department . . . and the Department of Agriculture and the Farm Bureau Federation, which have the mistaken idea that a considerably greater volume of surplus commodities would be shipped if only foreign vessels were used."); id. at 2552 (remarks of Sen. Butler).

<sup>8/</sup> H. Rep. No. 2329, 83d Cong., 2d Sess. 1-2 (1954).

<sup>9/</sup> S. Rep. No. 1584, 83d Cong., 2d Sess. 1 (1954).

Moreover, the Senate report describes the bill as desirable because it "plugs existing loopholes, particularly with respect to offshore purchasing and programs financed in any way by Federal funds." Nowhere in either the House or Senate reports is there any indication whatsoever that the Cargo Preference Act applies only to concessional sales. Certainly the Act does apply to concessional sales—under the category of furnishing goods without reimbursement—but it does not apply only to concessional sales. Such an overly restrictive reading of the Act ignores the three other clearly defined categories where cargo preference applies, one of which is when the United States "advances funds or credits." Furthermore, the House report clearly indicates the kind of commercial transaction Congress intended to exclude from cargo preference. The report states that the law "has no application to purely commercial transactions where a broker or exporter sells to a firm abroad without the participation of the United States Government." The NZDB butter sale is not being handled by a broker or exporter; the butter will not be sold to a private foreign firm but to a New Zealand governmental entity; 12 and the U.S. Government is unquestionably involved. Thus, the present sale bears no resemblance at all to the type of normal commercial sale that Congress meant to exclude from the purview of the Act.

In addition to the legislative reports issued when the bill was under consideration, within a year after its passage the Merchant Marine and Fisheries Committee held oversight hearings to investigate whether the Cargo Preference Act was being properly administered. The report resulting from those hearings states that cargo preference applies to all "United States Government-controlled programs financed by Federal funds in whatever form they might take." Is Clearly the present case, where the United States has extended an interest-free 180-day credit to NZDB, constitutes a financing of the butter sale through the use of Federal funds.

Not only do the House and Senate reports accompanying and subsequent to the Act support the view that an extension of credit alone is enough to make cargo preference apply, but also numerous floor statements by the bill's chief sponsor, Senator John Marshall Butler of Maryland, indicate his understanding that this was the case. During debate, Senator Butler stated that the bill would "require shipment in United States-flag vessels of at least 50 percent of foreign aid and other federally owned or

<sup>10/</sup> Id. at 5.

<sup>11/</sup> H. Rep. No. 2329, 83d Cong., 2d Sess. 2 (1954).

<sup>12/</sup> Dairy Board Act 1953, 1953 Stat. N.Z. No. 41, as amended by Dairy Board Amendment Act 1958, 1958 Stat. N. Z. No. 62.

<sup>13/</sup> H. Rep. No. 80, 84th Cong., 1st Sess. 4 (1955) (emphasis added).

financed ocean cargoes." He added later that the bill provided "for shipment of at least 50 percent of all aid or federally owned or financed cargoes," and then repeated verbatim the language found in the Senate report that the bill "plugs existing loopholes, particularly with respect to offshore purchasing and programs financed in any way by Federal junds." Similar remarks were made in the House by Congressman Friedel, who stated that the bill "provides for transportation on privately-owned American-flag vessels of at least 50 percent of the U.S. Government financed cargoes."

After passage of the bill, Senator Butler reiterated his views, noting that the Act assures U.S.-flag vessels of "at least 50 percent of all oceanborne cargoes purchased for, or given away by, or financed by the Federal Government." 18 He concluded: "And certainly, it is not too much to ask that cargoes for our own needs, those which we give away, and those which we finance in one way or another, be divided equally as between our own shipping and that of other nations." 19

#### B. USDA's Position Misconstrues the Act

Relying on an opinion of its General Counsel, USDA argues that the Cargo Preference Act does not apply because the butter sale to NZDB is a commercial rather than a concessional transaction. The General Counsel's opinion, however, makes no attempt to analyze the plain language of the statute, nor does it make any reference to the legislative history, where extensions of credit alone are clearly delineated as a separate basis for applying cargo preference. Thus, USDA ignores the primary source—the statute—and the most important secondary source—the legislative reports—in rendering an opinion interpreting the Cargo-Preference Act. These are two fatal flaws in the USDA analysis.

<sup>14/ 100</sup> Cong. Rec. 8227 (1954) (emphasis added).

<sup>15/</sup> Id. at 8228 (emphasis added).

<sup>16/</sup> Id. (emphasis added).

<sup>17/</sup> Id. at 13952 (remarks of Rep. Friedel).

<sup>18/ 101</sup> Cong. Rec. 1275 (1955) (remarks of Sen. Butler)(emphasis added).

<sup>19/</sup> Id. at 1276 (emphasis added).

Instead, USDA relies exclusively on two opinion letters of the Attorney General, one from 1963 and another from 1965.

Both of these opinions, however, address factual circumstances that differ in a very crucial respect from the present situation. In both, the Attorney General discusses the applicability of cargo preference where the United States extends credit to a private domestic exporter. No private domestic exporter is involved in the NZDB butter sale; the United States is extending credit directly to a foreign nation. In 1963, the Attorney General concluded that cargo preference did apply when (1) the United States extended credit to a domestic exporter and (2) the export was designed to benefit the economy of the foreign nation. In 1965, the Attorney General stated that cargo preference did not apply when (1) the United States extended credit to a domestic exporter and (2) the export did not aid the foreign nation. In both cases, the fact that credit had been given to a domestic exporter rather than directly to a foreign nation was critically important—a fact that is totally ignored by USDA. Only by ignoring the unique facts of the Attorney General opinions could USDA conclude that the sole consideration in applying cargo preference is whether a sale is concessional. Whether a sale is commercial or concessional is a factor, but is not the only factor. The other factor—whether credit is extended directly to a foreign nation or to a private domestic exporter—is crucial, and has been completely overlooked by USDA.

Even assuming, without conceding, that the NZDB butter sale is a wholly commercial transaction, as contended by USDA, the precise situation presented by this sale is simply not addressed by either of the Attorney General opinions cited by USDA. In neither case did the Attorney General discuss a situation where the sale is commercial and the United States is extending credit directly to a foreign nation. The facts here are materially different, and the prior opinions simply are not on point.

Neither can it be argued that the distinction between extending credit directly to a foreign nation and extending credit to a private domestic exporter is of no significance. Throughout the 1963 opinion, the Attorney General constantly repeats that he is discussing only extensions of credit to domestic exporters. The opinion is carefully and indisputably limited to that situation, and cannot reasonably be read to apply to a situation where credit is extended directly to a foreign nation. Moreover, two previous Attorney General opinions, which are included in the appendix to the 1963 opinion, clearly distinguish between extensions of credit to domestic exporters and extensions of credit to foreign nations. In a 1956 opinion, Attorney General Herbert Brownell wrote to the Secretary of Agriculture:

<sup>20/ 42</sup> Op. Att'y Gen. 203 (1963); letter from Norbert A. Schlei, Assistant Attorney General, to John C. Bagwell, USDA (December 6, 1965).

"I agree with your General Counsel that in so far as the commodities involved are sold on credit to private domestic exporters and purchased by private foreign importers, Public Law 664, 83d Congress (supra), would seem to have no application. The statute by its express terms is applicable where the United States extends credit in connection with the furnishing of commodities to or for the account of any foreign nation.'

. . If, on the particular facts, it appeared that, even without any intergovernmental agreement, credit, in fact, was extended by the United States to a foreign government in connection with the furnishing of agricultural commodities, the preference of the statute might well apply."21

In the second letter appended to the 1963 opinion, the Attorney General found that cargo preference did not apply when surplus commodities were sold abroad through private domestic exporters and credit was extended to those exporters by the United States. The Attorney General stated:

"By its terms, the preference stemming from credit transactions would appear to apply only where the United States advances credit to a foreign government. The credit advanced by the United States in these transactions is to American exporters alone, to facilitate through such channels dollar sales of commodities in the Government's hands. It is neither in form nor substance an advance of credit to a foreign government."<sup>22</sup>

The fact that United States credit was not being extended directly to foreign nations was of critical importance in these opinions. Subsequent Attorney General opinions, in particular the 1963 opinion upon which USDA so heavily relies, have not changed the distinction made in the earlier opinions. Rather, the 1963 opinion simply focuses on the commercial/concessional distinction to decide whether cargo preference applies when credit is extended to domestic exporters. The 1963 opinion carefully preserves the distinction between extending credit to a domestic exporter and extending credit to a foreign nation.

Reading all of the Attorney General opinions together leads to the conclusion that cargo preference does apply where a sale is

<sup>21/</sup> Letter from Herbert Brownell, Jr., Attorney General, to the Secretary of Agriculture (January 20, 1956) (emphasis added).

<sup>22/</sup> Letter from W. Wilson White, Assistant Attorney General, to Marvin L. McLain, USDA (October 14, 1957).

designed to aid the importing country. 23 In such a situation the transaction falls within the statutory category of furnishing goods "without provision for reimbursement." But cargo preference is not limited to cases where the United States furnishes goods without compensation. The plain meaning of the statute also requires that cargo preference apply when credit is extended by the United States to a foreign nation. In the situation addressed by the Attorney General in 1963, credit went to private domestic exporters, and cargo preference would not have applied but for the fact that the sale was also concessional. Thus, in the passage relied upon by USDA, the Attorney General correctly states that the extension of credit to a domestic exporter in connection with a purely commercial sale does not invoke cargo preference. This statement is true, but it has absolutely nothing to say about the applicability of cargo preference when credit is extended directly to a foreign nation, as is the case here with the NZDB butter sale.

The Cargo Preference Act was passed in 1954, during a time when the United States was providing large amounts of foreign aid to Europe and the Far East to help nations in those areas recover from the devastation of World War II. The primary thrust of the legislation was aimed at assuring U.S.-flag vessels a portion of that foreign aid trade. Thus, it was natural for the debate to focus on the foreign aid aspect of the bill, which corresponds with the statutory requirement that half of all goods furnished "without reimbursement" be carried on American ships. This in turn has lead to the misunderstanding that the Cargo Preference Act was meant to apply only in giveaway or concessional transactions. The legislative history is clear however, that the Act was designed to extend and broaden the cargo preference provisions that had often been included on an ad hoc basis in many previous foreign assistance laws. 24 Part of that extension and broadening resulted in the Act's application

<sup>23/ 42</sup> Op. Att'y Gen. at 312.

<sup>24/</sup> S. Rep. No. 1584, 83d Cong., 2d Sess. 5 (1954) ("The Committee is convinced that the bill . . . is desirable as a codification and extension of present provisions in the several foreign economic and military-aid statutes . . . "); 100 Cong. Rec. 8227 (1954) (remarks of Sen. Butler) ("The bill . . . would close at least some of the loopholes through which cargoes that should have been carried in United States-flag ships have been routed into foreign ships."); Id. 5466 ("(T)his bill would . . . broaden() existing 50-50 legislation to include all Government aid and Government-financed purchasing, and so on, on a permanent basis, and applying to all such cargoes."); 102 Cong. Rec. 1705 (1956) (remarks of Sen. Butler) ("It codifies and extends into permanent legislation various preferences for United States-flag commercial vessels in the transportation of Government-generated ocean cargoes.").

not only to cases where the United States gives away goods, but also to instances where the government extends credit in connection with the sale of products to foreign nations. To read the Act as applying only to concessional or giveaway transactions, therefore, constitutes a misreading of the plain statutory language and ignores the legislative history.

Furthermore, the legislative history of the Cargo Preference Act reveals Congress 'awareness of federal agencies' traditional antipathy to cargo preference and indicates the Congressional intent that federal agencies comply fully with both the letter and the spirit of the law. USDA has failed to meet the letter or the spirit of the law in this case. Senator Butler, the bill's chief sponsor, was absolutely unequivocal on the Floor of the Senate when he stated: "Let me make one point clear. I do not wish to make legislative history in connection with the bill which will water down its provisions to the extent of allowing the various agencies, under a pretext, to get out from under its plain and clear provisions." Senator Butler was correct, the mandate of the Cargo Preference Act is plain and clear, and it is regrettable that even now, nearly 28 years after passage of the Act, certain federal agencies continue to try to circumvent its requirements. It is particularly ironic and disturbing that the United States Merchant Marine, already in dire straits, should be further debilitated by federal agency actions at a time when the nation has recommitted itself to the vigorous support of our maritime industry.

<sup>25/ 100</sup> Cong. Rec. 8240 (1954) (remarks of Sen. Butler); see note 7 supra.

#### APPENDIX A

## NEW ZEALAND DAIRY BOARD PAST AND PROPOSED BUTTER SHIPMENTS

DATE	TON8	ORIGIN	<u>DESTINATION</u>	CARRIER
10-2-81	900	Philadelphia, PA	New Zealand	Columbus Line (Germany)
10-12-81	2160	Philadelphia, PA	New Zealand	Pace Line (U.K.)
10-15-81	1000	Green Bay, WI	Belgium	Trans Ocean Reefer (Philippines)
10-15-81	700	Kenosha, WI	Belgium	Trans Ocean Reefer . (Philippines)
10-18-81	2160	Philadelphia, PA	New Zealand	Farrell Line (U.S
10-28-81	900	Philadelphia, PA	New Zealand	Pace Line (U.K.)
11-5-81	1800	Philadelphia, PA	New Zealand	Farrell Line (U.S.
11-9-81	1800	Philadelphia, PA	New Zealand	Columbus America (Germany)
11-11-81	1800	Philadelphia, PA	New Zealand	Farrell Line (U.S.

APPENDIX B Page 1

Merchant Marine Act, 1936, Section 901(b)(1), 46 U.S.C. \$ 1241(b)(1).

Whenever the United States shall procure, contract for, or otherwise obtain for its own account, or shall furnish to or for the account of any foreign nation without provision for reimbursement, any equipment, materials, or commodities, within or without the United States, or shall advance funds or credits or guarantee the materials, or commodities, within or without the United States, or shall advance funds or credits or guarantes the convertibility of foreign currencies in connection with the furnishing of such equipment, materials, or commodities, the appropriate agency or agencies shall take such steps as may be necessary and practicable to assure that at least 50 per centum of the gross tonnage of such equipment, materials or commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers), which may be transported on ocean vessels shall be transported on privately owned United States-flag commercial vessels, to the artest for United States-flag commercial vessels, to the artest for United States-flag commercial vessels, in such manner as will insure a fair and reasonable participation of United States-flag commercial vessels in such cargoes by geographical areas: Provided, That the provisions of this subsection may be waived whenever the Congress by concurrent resolution or otherwise, or the President of the United States or the Secretary of Defense declares that an emergency exists justifying a temporary waiver of the provisions of section 901(b)(1) and so notifies the appropriate agency or agencies: And provided further. That the provisions of this subsection shall not apply to cargoes carried in the vessels of the Panama Canal Company. Nothing herein shall repeal or otherwise. apply to cargoes carried in the vessels of the Panama Canal Company. Nothing herein shall repeal or otherwise modify the provisions of Public Resolution Numbered 17. Seventy-third Congress (48 Stat. 500), as amended. For purposes of this section, the term "privately owned United States-flag commercial vessels" shall not be deemed to include any vessel which, subsequent to the date of enactment of this amendment, shall have been either (a) built outside the United States, (b) rebuilt outside the United States, (b) rebuilt outside the United States for a period of three years: Provided, housever, That the provisions of this amendment shall not apply where, (1) prior to the enactment of this amendment, the owner of a vessel, or contractor for the purchase of a vessel, originally conenactment of this amendment, the owner of a vessel, or contractor for the purchase of a vessel, originally con-structed in the United States and rebuilt abroad or con-tracted to be rebuilt abroad, has notified the Maritime Administration in writing of its intent to document such vessel under United States registry, and such vessel is so documented on its first arrival at a United States port not later than one year subsequent to the date of the enactment of this amendment, or (2) where prior to the enactment of this amendment, the owner of a vessel un-der United States registry has made a contract for the der United States registry has made a contract for the rebuilding abroad of such vessel and has notified the Maritime Administration of such contract, and such re-building is completed and such ressel is thereafter docu-mented under United States registry on its first arrival at a United States port not later than one year subse-quent to the date of the ensctment of this amendment.

Public Resolution 17, 73d Congress, 2d Session (1934), 46 U.S.C. \$ 1241-1.

Resolved by the Senste and House of Representatives of the United States of America in Congress assembled, That it is the sense of Congress that in any loans made by the Reconstruction Finance Corporation or any other instrumentality of the Government to foster the exporting of agricultural or other products, provision shall be made that such products shall be extrict exclusively in vessels of the United States, unless, as to any or all of such products, the Shipping Board Bureau, after investigation, shall certify to the Reconstruction Finance Corporation or any other instrumentality of the Government that vessels of the United States are not available in sufficient numbers, or in sufficient tonnage capacity, or on necessary sailing schedule, or at reasonable rates.

Mr. Seifert. The facts which are not in dispute are:

First, that there was a sale.

Second, that the sale price was below both the support and world

price on the date of the contract;

Third, that the terms of sale were FOB warehouse, with payment for each of the monthly invoices between August 5, 1981 and June 20, 1982, not due for 180 days following the issuance of the invoice.

Fourth, that the delayed payment is not subject to any interest

in consideration of the delay.

Fifth, that the terms of payment, at least constitute an extension

of credit.

Sixth, that by the terms of the contract, the sale constitutes a transaction between governments in which "the extension of credit \* \* \* is in connection with the furnishing of such \* \* \* commod-

The issues in dispute are:

First, that the cargo preference laws apply to transactions such as this.

Second, that the sale is not concessionary, that is that the terms

of sale are other than "commercial."

Third, that certain past opinions of Attorneys General of the United States are determinant in interpreting the nature of the instant transaction as one to which cargo preference applies.

The statute primarily at issue, known as the Cargo Preference Act or Public Law 664, would require at least half of the butter to

be shipped in U.S.-flag vessels.

It provides:

Whenever the United States shall procure, contract for, or otherwise obtain for its own account, or shall furnish to or for the account of any foreign nation without provision for reimbursement, any equipment, materials, or commodities, within or without the United States, or shall advance funds or credits or guarantee the convertibility of foreign currencies in connection with the furnishing of such equipment, materials, or commodities, the appropriate agency or agencies shall take such steps as may be necessary and practicable to assure that at least 50 per centum of

the gross tonnage of such equipment, materials, or commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers), which may be transported on privately owned United States-flag commercial vessels \* \* \*

The issue for the committee to determine is whether this sale to a foreign government by the Government of the United States in which transaction credit has been extended brings the transaction within the requirements imposed by the quoted statute.

The staff concludes that it does.

The Department of Agriculture, in response to inquiries posed by the committee, insists that to make the Cargo Preference Statute

operative, the transaction must be concessionary.

On the basis of the agreed to facts it could easily be argued that the below market price, the extension of credit and the agreement's terms, in which the United States agrees not to sell, for example, any butter during the 1-year period we are shipping butter under the contract to New Zealand, all constitute noncommercial conditions and hence a concessionary sale.

However, the staff believes it is not necessary to make the concessionary sale determination in order to interpret the statute

as applying to the transaction.

Simply stated, the plain language of the statute written as it is in the alternative, that is by enumerating four distinct categories or circumstances in which cargo preference applies, is clear enough to warrant support for the staff's conclusion.

The statute does not require a combination or pairing of these circumstances, but rather a showing of one of the separate and distinct categories is sufficient to bring into play the requirement that

a portion of the cargo be carried in U.S.-flag vessels.

The Congress is not being asked to render a new and contradictory position by reasserting the plain language interpretation of Public Law 83-664.

In 1954, both the House and Senate, in reporting the bill which was to become Public Law 83-664, had no difficulty with this conclusion:

The House report unequivocally stated:

The bill applies in four kinds of situations:
(1) Where the United States procures, contracts, or otherwise obtains for its own account equipment, materials, or commodities;

(2) Furnishes equipment, materials, or commodities to or for the account of any foreign nation without provision for reimbursement;

(3) Advances funds or credits; or (4) Guarantees the convertibility of foreign currencies in connection with the furnishing of such equipment, materials, or commodities.

The Senate report is similar:

At least 50 percent of any equipment, materials, or commodities procured, contracted for or otherwise obtained by the United States Government anywhere in the world, for its own account, or to be furnished or given to any foreign government, or financed, shall be transported in privately owned United States merchant vessels \* \* \*

In relying on Attorney's General opinions in their assertion that an essential element of a cargo preference transaction is that the sale be concessionary, the U.S. Department of Agriculture ignores the fact that in these opinions the Attorney General addressed a situation in which credit was not being extended to a foreign government.

The critical issue in the cited opinions was whether cargo preference applied in instances where credit, although extended, was not directly to a foreign government. In limiting the opinions to transactions in which "commodities are sold on credit to private domestic exporters and purchased by private foreign importers," the interpretations expressly reaffirmed the position being asserted by the memorandum, as witness the following statement by Attorney General Brownell in 1956:

The statute by its express terms is applicable where the United States extends credit in connection with the furnishing of commodities to or for the account of any foreign nation.

We have been unable to find in the authorities cited by the Department of Agriculture any justification for rejecting the conclusion that the plain language of the statute Public Law 83-664 requires that the transportion of at least 50 percent of the commodity, butter sold by the United States to New Zealand, be transported in vessels of the United States.

In summary, we conclude that the New Zealand Dairy Board is a constituent entity of the Government of New Zealand and is the foreign nation to which the United States directly furnished commodities and that in connection with the furnishing of the com-

modity directly extended credit.

Without regard for whether the sale was concessionary or not, and there is sufficient evidence that the transaction is in fact concessionary, the plain language of the statute, the legislative history as contained in both House and Senate reports and the opinions of Attorneys General, all point to the ultimate conclusion that the agreement in question is subject to the provisions of Public Law 83-664.

That concludes our summary statement, Mr. Chairman.

We will be glad to answer any questions the committee may have.

The Chairman. Mr. Sunia, do you have any questions of counsel? Mr. Sunia. No.

The CHAIRMAN. Thank you.

I have one or two short questions, if you don't mind.

Are you telling the committee that the cargo preference law would apply to any sale between the United States and a foreign country, regardless of the terms?

Mr. Seifert. No, Mr. Chairman. If the sale were, for instance, at market price and there was no unusual credit extended, or if the convertibility of currency was not guaranteed, then the cargo preference law might not apply.

The CHAIRMAN. But you are saying that if the United States sells commodities to foreign nations at give-away prices, that cargo preference applies and no other conditions of the statute must be satis-

fied for cargo preference to apply?

Mr. SEIFERT. Yes, the statute says: "Whenever the United States shall \* \* \* furnish to any foreign nation without provision for reimbursement, then cargo preference shall apply," and that phrase "without reimbursement" means including sales at below market price.

The CHAIRMAN. Well, then, such a concessionary sale requires cargo preference regardless of whether credit is extended?

Mr. Seifert. Yes, Mr. Chairman.

The CHAIRMAN. And you are interpreting the statute to require cargo preference to apply not only where a concessionary sale is accompanied by an extension of credit but also to those transactions in which the only statutory category you can find is the extension of credit?

Mr. Seifert. Yes; it is our position that so long as the transaction is between governments and the extension of credit is made directly by the U.S. Government to the government of the importing nation, then cargo preference applies.

The CHAIRMAN. So that we are absolutely certain of the conditions the staff finds involve the required imposition of cargo prefer-

ence, could you please list the cartgories?

Mr. Seifert. Cargo preference under Public Law 83-664 is required when:

First, the United States obtains cargo for its own account; or

Second, the United States provides cargo for other nations without provision for reimbursement; or

Third, where in connection with moving cargo to another coun-

try, the United States advances funds or credits; or

Fourth, where the United States guarantees the convertibility of that country's currency in connection with the furnishing of goods, et cetera.

The CHAIRMAN. I thank the staff very much for the very thorough analysis you have made of the whole situation and your explanation here today.

Our next witness is Adm. Harold E. Shear, Administrator,

Maritime Administration, Department of Transportation.

We are delighted to have you here, sir. We will recognize you at this time.

STATEMENT OF ADM. HAROLD E. SHEAR, ADMINISTRATOR, MARITIME ADMINISTRATION, DEPARTMENT OF TRANSPORTATION, ACCOMPANIED BY LEWIS C. PAINE, JR., ACTING ASSOCIATE ADMINISTRATOR, MARKET AND DOMESTIC ENTERPRISE, AND STUART R. BREIDBART. DEPUTY CHIEF COUNSEL. MARAD

Admiral Shear. Mr. Chairman, members of the committee, I have a brief statement which I would like to make, with your permission, sir.

The CHAIRMAN. You may proceed.

Admiral Shear. My name is Harold E. Shear, and I am the Maritime Administrator of the Department of Transportation.

I am very pleased to appear before the committee this afternoon with respect to the administration of our cargo preference laws by the Maritime Administration.

On my right is Mr. Lewis Paine and on my left Mr. Stuart Breid-

There are three Federal laws relating to cargo preference in general use today. The committee staff has referred to them in their presentation.

The first cargo preference law is the Cargo Preference Act of 1954 (46 U.S.C. 1241(b)), which requires at least 50 percent of Government generated cargoes to be shipped on privately owned U.S.-flag commercial vessels. The Cargo Preference Act of 1954 is also referred to as Public Law 664.

The Cargo Preference Act of 1954 also provides the authority of the Department of Transportation to oversee such Cargo Prefer-

ence Act. In this regard, the statute states as follows:

Every department or agency having responsibility under this subsection shall administer its programs with respect to this subsection under regulations issued by the Secretary of Transportation. The Secretary of Transportation shall review such administration and shall annually report to the Congress with respect thereto.

The second statute regarding cargo preference is Public Resolution 17 (15 U.S.C. 616a) which states that it is the "sense of Congress" that in any loans made by a Government agency to foster the export of agricultural or other products, provision shall be made that such products shall be carried exclusively in vessels of the United States. The Maritime Administration administers Public Resolution 17 and, in appropriate cases, grants "waivers" to permit 50 percent of the cargoes to be shipped on vessels of the importing country.

The third cargo preference law is the Cargo Preference Act of 1904 (10 U.S.C. 2631) that requires military cargoes to be shipped on vessels of the United States or belonging to the United States, whether or not such vessels are privately owned, U.S.-flag commer-

cial vessels.

In this regard, it should be noted that the Cargo Preference Act of 1954, which I mentioned earlier, requires that 50 percent of such military cargoes be shipped on privately owned U.S.-flag commercial vessels.

It is clear, therefore, that the Maritime Administration plays an important role with respect to the administration of all three cargo

preference laws.

To assure that applicable cargo preference statutes are followed, the Maritime Administration monitors the shipping activities of 67 Federal agencies, including the Export-Import Bank of the United States, and the military assistance program and the foreign military sales program of the Department of Defense.

Pursuant to regulations issued by the Maritime Administration, the various agencies are required to report on each shipment subject to the cargo preference laws. These usually take the form of

bills of lading, or equivalent documentation.

A computer-aided monitoring system and a concentrated interagency liaison program has permitted the Maritime Administration to process 31,172 ocean bills of lading for 1979 cargoes covering the Export-Import Bank, other civilian agencies, and foreign mili-

tary sales credit shipments.

The equivalent of 21,500 additional bills of lading for military assistance program and foreign military sales cargoes also were processed by this system through the receipt from the Department of Defense of computer tape reels. Total 1979 documentation, and I use 1979 because that was the last year with complete documentation, including the DOD equivalents, increased by 23 percent over 1978 levels.

In the past, despite these efforts by the Maritime Administration, full compliance with applicable cargo preference laws has not been achieved. There have been instances when the full cooperation of the other agencies did not occur. However, this will not continue in the Reagan administration.

Mr. Chairman, with respect to the sale of butter by the Department of Agriculture to the New Zealand Dairy Board, I am pleased to be able to inform you that an honest difference of opinion has

been resolved to my satisfaction.

Last Wednesday, I had a most cordial visit with the Honorable Richard E. Lyng, Deputy Secretary of the Department of Agriculture. Deputy Secretary Lyng is hopeful that the New Zealand Dairy Board will be responsive to the Department of Agriculture request that equal access be given U.S. ships under this sale.

Indeed, with 13,320 tons of butter shipped or booked as of October 28, 1981, 43 percent has been allocated to U.S.-flag vessels. As you know, there is an additional 87,000 tons of butter yet to be

shipped.

In the future, Deputy Secretary Lyng and I will deal directly and personally both on the remainder of the butter shipment to New Zealand and in the very earliest stages of cargo development under programs administered by the Department of Agriculture.

We believe that this will insure that appropriate consideration will be given at the highest levels to the requirements of our respective agencies and will result in a full and fair measure of such

cargo moving on U.S.-flag ships.

In closing, Mr. Chairman, you have asked whether current enforcement authority of the Maritime Administration is adequate or

whether it needs improvement.

By and large, Mr. Chairman, we receive satisfactory cooperation from all agencies. Overall, I am satisfied that the existing procedures work reasonably well in order to insure that U.S.-flag carriers adequately participate in these programs.

Moreover, Secretary Lewis has been and will continue to be personally involved in these issues, and asks that I convey to this com-

mittee his own endorsement of our cargo preference laws.

That concludes my prepared statement, Mr. Chairman, and I will be pleased to answer any questions that you or the members of the committee may have.

The Chairman. Thank you for your testimony and your assurance that some reconsideration in this particular case is being

given to the American vessels.

How does the Maritime Administration go about overseeing the

implementation of the cargo preference laws generally?

Do you require all agencies to report, on a regular basis, ocean shipments they make and the percentage carried in U.S.-flag vessels?

Admiral Shear. Each agency must regularly report each shipment made or, where commercial shippers have assumed responsi-

bility for compliance to provide that they report.

In this regard, MarAd has established regulations under the Code of Federal Regulations which make it a mandatory requirement that we receive reports or bills of lading for each federally sponsored shipment.

We calculate the U.S.-flag percentage from these reports, check-

ing the results against the agency's own records.

The Chairman. If another agency disagrees with your analysis that cargo preference applies, how can you, in the Department, enforce your decision?

Admiral Shear. We have several actions which we would take. We can request the Comptroller General to provide an opinion on the issue, and. if that does not resolve the difference, we can then report our determination of noncompliance to the Congress as required by the law.

I must say that the Maritime Administration itself has no actual

enforcement authority.

The CHAIRMAN. With regard to the New Zealand Dairy Board's butter sale specifically, what is the Maritime Administration's position on the applicability of cargo preference and why?

Admiral Shear. We feel that the cargo preference law applies in

this case for three reasons:

First, because the 180-day credit terms amounts to a loan under Public Resolution 17; second, because the terms of sales amount to an advancement of funds or credits under the Cargo Preference Act; and third, because the arrangement is a concessional sale under the Cargo Preference Act.

The CHAIRMAN. You have heard the staff presentation that the cargo preference laws apply because the United States has ex-

tended credit to the New Zealand Dairy Board.

Do you agree with that analysis?

Admiral Shear. We agree with that analysis to the extent that the New Zealand butter sale is deemed to be foreign assistance to New Zealand.

We felt, within the Maritime Administration, that the foreign assistance requirement is somewhat questionable in the New Zealand sale. Therefore, our staff concentrated on the argument that the 180-day credit terms constituted a loan under Public Resolution 17, but this possibility does not preclude coverage of the New Zealand transaction under the Cargo Preference Act.

The terms of that sale not only satisfy the advanced funds or credit tests, which your staff focused on, but also satisfy the more stringent concessional sales test followed by the Attorneys General.

The CHAIRMAN. Well, sir, do you agree with our staff's analysis that the cargo preference law applies whenever one of four categories comes into play?

Those categories being when the United States:

First, buys goods; second, provides goods to foreign nations for free or without adequate compensation; third, advances money or credit; or fourth, guarantees the convertibility of foreign currency.

May I inject into the record at this point that I can see no problem or question about provision No. 2, where the United States provides goods to foreign nations for free or without adequate compensation; or No. 3, advances money or credit, because these clearly apply to this transaction, in my opinion.

Admiral Shear. Yes, I do agree with your staff's analysis.

The CHAIRMAN. And what weight do you give to old Attorneys General opinions in determining the applicability of the guaran-

teed preference laws to specific transactions, more specifically to this transaction?

Admiral Shear. The opinions of the Attorneys General really

constitute the essence of the law on this subject.

In the absence of any means of enforcement, the Maritime Administration has had to rely on these opinions in order to mandate compliance.

I must also say that full compliance has never really ever been

100 percent achieved.

The CHAIRMAN. Thank you.

At this point I will recognize Mr. Sunia for any questions or comments.

Mr. Sunia. I just have one question, Mr. Chairman; but before I ask that, may I say it is a pleasure to have you back in the chairmanship of our committee, and I hope the problems are all over.

The Chairman. I changed my address from Walter Reed Hospital

back to the Cannon Building right now.

Mr. Sunia. I hope that is not temporary.

The CHAIRMAN. I thank the gentleman very much for his kind remarks.

Mr. Sunia. I do want to understand this a little bit more, Mr.

Chairman.

If indeed the transaction is subject to the provisions of Resolution 17 and of the first paragraph of Public Law 83-664, as explained by the witness, I am a little bit at a loss as to why it would be necessary to request the New Zealand Dairy Board to be responsive, if indeed the sale is subject to the requirements of the law.

I don't quite see the reason for the request. To me it is subject and it should be a matter of a request and then to see whether the

New Zealand Board would be responsive.

I wonder if the witness would care to comment.

Admiral SHEAR. I would be pleased to comment on that, sir.

As I understand it, there is no cargo preference clause in the

contract at the present time.

That being the case, after thorough discussion between our two staffs, the Maritime Administration and the Department of Agriculture, I have resorted to an informal understanding at the top levels of the Department of Agriculture, specifically Deputy Secretary Lyng, that we will do our best to insure that U.S. carriers do in fact get a fair share of that cargo, and we have been working very vigorously to achieve that end.

We have so far gotten some 43 percent and, with the understanding which we have now worked out, I am quite confident that is going to continue throughout the shipment of the remaining 87,000

tons of cargo

It is an informal agreement at the present time, admittedly.

Mr. Sunia. If I might make a comment, Mr. Chairman, it seems rather peculiar that something that is subject to law must further on be subject to an informal agreement.

To me it seems like it should be subject and should not any longer be a matter of further discussion as to whether it should be

complied with 100 percent or 43.

Thank you.

The Chairman. Thank you, Mr. Sunia.

Mr. Oberstar?

Mr. OBERSTAR. I too join in welcoming you back to the committee. It is a delight to see you looking so well. If a stay in Walter Reed does that much for you, I will go there myself, without the complications the chairman had.

The CHAIRMAN. I would not recommend it.

Mr. OBERSTAR. Admiral, what is the freight rate on the butter cargo being carried to New Zealand and how does that compare with the freight rate on other commodities?

Admiral SHEAR. It is carried under a conference rate.

Mr. OBERSTAR. Under conference rates.

Would you supply for the record the information comparing the cargo rate with conference rate, which are applicable in this situation, to butter as compared to other commodities carried in similar trade?

Admiral SHEAR. I will provide that information.

In the negotiations early on in this shipment, there was a significant reduction in the rates over what the first estimate was.

I will also provide that information.

[The information follows:]



Administrator

400 Seventh Street, S.W. Washington, D.C. 20590

22 JAN 1982

The Honorable Walter B. Jones Chairman, Committee on Merchant Marine and Fisheries House of Representatives Washington, D.C. 20515

Dear Mr. Chairman:

During my testimony before the Committee on Merchant Marine and Fisheries on Monday, November 9, 1981, I was requested to provide the Committee with certain information.

As per page 25 of the transcript:

The applicable conference rate for butter to New Zealand and comparable rates for other commodities in similar trades.

The attached copies of appropriate pages of the "U.S. Atlantic and Gulf/Australia--New Zealand Conference Agreements No. 6200" contains the required information as follows:

The Commodity Index indicated no specific listing for butter, cheese, and other dairy products. Consequently, under the tariff rules the applicable rate for any of these commodities would fall under Item 2340, page 325, "Refrigerated Cargo, NOS," at \$353.75 per 2,240 lbs. or 40 cubic feet, whichever produces the greater revenue, plus bunker surcharge as shown on page 3-A. Comparable rates on other refrigerated cargo items are also shown on pages 325 and 326.

As per page 26 of the transcript:

The rate reductions that were accomplished below the rates on file by the Conference during the freight negotiations.

On October 8, 1981, project rates covering butter were filed by the Conference, as per attached tariff pages 393 and 394, with an expiration date of December 31, 1981, as follows:

Per 20' Container	(includes surcharges) \$2,350.00 \$1,800.00 \$2,000.00
Pier to house basis only	\$2,350.00
House to house only	\$1,800.00
Pier to free out Auckland only	\$2,000.00

Please let me know if you desire further information.

House to free out Auckland only

Sincerely,

Sgd. H. E. Shear

H.E. SHEAR Maritime Administrator

\$1,650.00

Enclosures

#### U.S. ATLANTIC AND GULF/AUSTRALIA— NEW ZEALAND CONFERENCE AGREEMENT NUMBER 6200

#### FREIGHT TARIFF NO. 4

Cancels Application of Australia New Zealand and Society Islands Freight Tariff No. 3

LOCAL COMMODITY RATES
Including Contract Rates — See Rule 14

FROM

Atlantic and Gulf Ports of the United States of America

TO

Ports in Australia, New Zealand and the Society Islands also ports in Cook Islands - Fiji Islands - New Caledonia - New Hebrides Territories of Papua and New Guinea - British Samoa - Solomon Islands -Tonga Islands - Norfolk Island - Gilbert Islands (Either Direct Call or Transshipment - See Rules 13 & 21)

Transportation under the terms of the Tariff is subject to the terms of individual carriers' Bills of Lading.

Bills of Lading of Member Lines are as shown in FREIGHT TARIFF NO. 10—FMC NO. 2
The transportation of explosives, inflammables, corrosive materials, compressed gases, combustible liquids and other hazardous articles will be governed by the Code of Federal Regulations, in: Title 49, Sections 171-177. (See Rule 16)

#### PARTICIPATING CARRIERS

See Page 3

ASSOCIATED CONTAINER TRANSPORTATION (AUSTRALIA) LTD. (VOCC)
Associated Container Transportation

(U.S.A.) General Agents
(ATLANTTRAFIK EXPRESS SERVICE) (VOCC)

TRADER NAVIGATION CO. LTD. BROSTROM SHIPPING CO., INC.

(COLUMBUS LINE) (VOCC) Hamburg - Sudamerikanishe Dampfschifffahrts - Gesselschaft, Eggert & Amsinck Columbus Line, Inc. - General Agents FARRELL LINES INCORPORATED (VOCC)

THE AUSTRALIAN NATIONAL LINE (VOCC)
(THE AUSTRALIAN SHIPPING COMMISSION)
Associated Container Tramportation
(U.S.A.) General Agents

THE BANK AND SAVILL LINE, LIMITED (VOCC)
Boyd, Weir & Sewell Inc. - General Agents

Issued by: T.J. Conrory, Jr. Chairman U.S. Atlantic and Gulf Australia -New Zealand Conference 19 Rector Street, New York, N.Y. 1000b Telephone No. (2)21 943-2223

(C) SUBSCRIPTION: DOMESTIC \$200.00 FOREIGN \$250.00 - SEE RULE NO. 32

EFFECTIVE: March 5, 1980

Correction No. 2:

U.S. Atlantic & Gulf/Australia -New Zealand Conference

Freight Tariff No. 4

F.M.C. No. 13

3 Original Cancels Page

Page

Orig./Rev.

States of America.

FROM: Atlantic and Gulf Ports of the United TO: Main Ports in Australia and New Zealand as listed in Rule 21 A and B, and Ports in the .Society islands. See Rule 21 for application to other ports.

Effective Date July 8, 1979 Correction

#### PARTICIPATING CARRIERS

(Atlantitratile Express Service) (VOCC) Trader Navigation Co. Ltd., 8/8 Cruiched Friars London E.C.3 - England

(Columbus Line) (VOCC) Hamburg-Sudamerikanische Dampfshifffahrts Gesellshaft, Eggert & Amsink 2000 Hamburg 11 Ost-West Strasse 59 Hamburg, Germany

Farrell Lines Incorporated (YOCC)
1 Whitehall Street New York, New York 10004 U.S.A. Pacific America Container Express Line (Pace Line) Agreement No. 9925 The Service of: **Associated Container Transportation** (Australia) Ltd. (VOCC) 136 Fenchurch Street London EC3M6 DD, England AND
The Australian National Line (VOCC) (The Australian Shipping Commission) 8 Bridge Street Sydney, N.S.W., Australia

The Bank and Savill Line Limited (VOCC) 21 Bury Street London E.C. 3 - England

#### **EXPLANATION OF REFERENCES**

Refer to Note in same numbered item or on same page.

Indicates reduction indicates increase

indicates change, not increase or decrease. Indicates deletion

8 X O O O Indicates exception to general change

Indicates pounds, weight indicates cubic foot or feet ibs. cu. fl.

K.D. or C.K.D.

 Indicates knocked down or completely knocked down.
 (Free in and out) - Indicates free of loading and discharging cost to the carrier. F.I.Q.

Indicates Weight or Measurement Rule 2 (c)
Indicates Weight - Rule 2 (c)
(in Rate Column) - Indicates refer to Conference for rates WL Refer

Aust. Australia New Zealand

U.S. United States of America

Basis

Indicates basis upon which rates apply - Rule 2(c)

For Explanation of References See Page 3

# U.S. Atlantic & Gulf/Australia - Page New Zealand Conference Freight Tariff No. 4 F.M.C. No. 13 FROM: Atlantic and Gulf Ports of the United States of America. TO: Main Ports in Australia and New Zealand as listed in Rule 21 A and B, and Ports in the Society Islands. See Rule 21 for application to other ports. Unig Rev. Page 2/Cli Rivv. 3-A Cancel Page 2/hCli Rivv. 3-A Effective Date Nuvermier 15, 1981

SURCHARGE SECTION

#### CURRENCY ADJUSTMENT FACTOR TO AUSTRALIA

#### BUNKER SURCHARGE TO AUSTRALIA AND NEW ZEALAND

- (8) A Bunker Surcharge of 16.5% per revenue ton to apply on all Main Port rates and Minimum Bill of Lading charges.
- (A)\* A Bunker Surcharge of 20% per revenue ton to apply on all Main Port rates and Minimum Bill of Lading charges.
- (A)\*\* A Bunker Surcharge of 22% per revenue ton to apply on all Main Port rates and Minimum Bill of Lading charges.
- (A)\*\* A Bunker Surcharge of 25% per revenue ton to apply on all Main Port rates and Minimum Bill of Lading charges.

\* Effective December 15, 1981 \*\* Effective January 15, 1982 \*\* Effective February 15, 1982

For Explanation of References See Page 3

1991

U.S. Atlantic & Gulf/Australia -6th Rev. 71 New Zealand Conference Cancels Page Freight Tariff No. 4 F.M.C. No. 13 5th Rev. 71 FROM: Attentic and Gulf Ports of the United TO: Main Ports in Australia and New Zealand as States of America.

TO: Main Ports in Australia and New Zealand as listed in Rule 21 A and 8 and Ports in the Elective Date isted in Rule 21 A and B, and Ports in the Society Islands. See Rule 21 for application to other ports. "September 22, 1981 Correction INDEX Building Paper.
Building Paper, Asbestos.
Building Plaster.
Building Products, Methacrylate Resin. 2065 127 Bulk Cargo Liners for Ocean Containers...... 
 Bull Dozers
 2855/2865

 Bullion, Silver or Gold
 16
 2260 2379 
 8urlap Bags
 430

 8urners, Oil
 1810

 8urning Oil
 1775/2175
 430 1810 1315 1702 1810 150 High Intensity Halogen Incandescent 783 1405 753 750 Photofiash Sutyl Lactale..... Bulbs, Unfinished Glass..... 1320 824/825 Bulgar....

For Explanation of References See Page 3

"Per telegraphic filing of September 22, 1981

U.S. Atlantic & G	Gult/ F	Australia -	Orig./Rev.	P
U.S. Atlantic & Gulf/Australia - New Zealand Conference				7
Freight Tariff No. 4		F.M.C. No. 13	Cancele	Pa
Freight failt No. 4		1	11th Rev.	7
OM: Atlantic and Gulf Ports of the United TO: Main Ports in Australia and New Zealand as States of America. 10: Main Ports in Australia and New Zealand as ilisted in Rule 21 A and B, and Ports in the		Effective Date		
Albies of Million		lands. See Rule 21 for application	**Novembe	10, 19
			Correction	19
	181	DEX T		
Cellulose Wadding	720	Children's Vehicles		3055
Cellulose, Woodpulp	720	Children's Vehicles, Motorized		1905
Cellulosic Fiber Granular	532	China Clay		595
Cement Clinker Grinding Compound	543	Chipboard		330/335
Cement, Linoleum	1200	Chip, Nylon		1955
Cement, N.O.S.,	535	Chippers, Log		2855
Cement, Refractory	2355	Chippers, Whole Tree		2855
Cement, Rooting	2460	Chips, Soap		2655
Cement, Rubber	540	Chiorate of Lime		760
Ceramic Accessories, viz.:	531	Chlorates, Barium, Calcium, Potas		750
Klins		Chlorate, Sodium		751
Coatings		Chloride, Aluminum Anhydrous		759
Plastic Molds		Chloride, Ammonium		935
Ceramic Fibre Insulation	1476	Chloride, Aqueous Choline		25/1780
Ceramic Glazed Tank Tiles	550	Chloride, Benzoyl		747
Ceramic Moulds	551	Chloride, Benzyl		750
Cereais, Dry, Prepared	573	Chloride, Calcium		765
Chain, Iron or Steel	1522	Chloride of Lime		760
Chain Saws and Parts	1812	Chloride, Methyl		1280
Chain, Sprocket:		Chlorinated Lime		760
for Agricultural Implements	70	Chlorine		755
for Agricultural Tractors	2855	Chioromycetin		1005
for Industrial Tractors	2865	Choline Chloride, Aquecus	109	95/1780
for Internal Combustion Engines	1811	Chopped Strand, Glass Fibre		1325
for Machinery	1810	Chopped Wire, Aluminum Scrap, Vi	2	92
Champers, Oil Refinery	1985	Chopper Rollers		2445
Channels, Iron or Steel	1505	Christmas Decorations		587
Char, Bone,	576	Chromate, Sodium		925
Charcoal, Activated	575	Chrome, Ore		2006
Chargers, battery	1060	Chrome Oxide Green		640
Chart Paper	2114	Chromic Acid		40
Chassis, automobile or truck	150	Chromic Oxide		(40
Cheese Cloth, Cotton	715	Chromium Plated, Iron or Steel as In		1535
Cheese, Rejected	2340	Chromium Sulphate		925
Cheese Wrap, Plastic	2369	Cigars		2820
Chelating Agents	578	Cigarette Paper		2077
Chemical Fertilizer Compounds	1125	Cigarettes		2820
Chemicals, Hazardous, N.O.S.	755	Circuit Reclosers, Oil		1063
Chemicals, non-Hazardous	752	Circus Props & Custumes		586
Chernes, in Brine	580	Citrate, Calcium (Lime)		750
Chests, Picnic	449	Cltrate, Sodium		902
Chewing Gum	847			
Chewing Gum, Refrigerated	2340			
Chewing Gum Base	585			
Chewing Gum Base, Refrigerated.:	2340			
Chicle	585			
Chicken, Canned	450			
"Per Telegraphic Filing of November 10, 1981				

U.S. Atlantic &	Gulf/	Australia -	Orig./Rev.	Pag
New Zealand Conference		6th Rev.	10	
Freight Tariff No. 4 F.M.C. No. 13		Cancels	Pag	
			5th Rev.	100
FROM: Attantic and Gulf Ports of the United T States of America.	O: Main Ports in Australia and New Zealand as listed in Rule 21 A and B, and Ports in the		Effective Date	
	Society I	slands. See Rule 21 for application	**july 7, 198	
			Correction	172
		IDEX		
Racks, Display	985	Reapers		70
Radar Equipment, Automotive Vehicles	156	Reclaiming Oil, Rubber		2175
Radial Arm Woodworking Saws and Parts	1062	Reclosers, Oil Circuit		1063
Radiator Compound	641	Red Lead		1735
Radio Cabinets	1265	Reference Fuel		2183
Radio, C.B.	2306	Refinery Equipment, Oil, as Listed		1985
Radio Equipment, Automotive Vehicles	156	Reflectors, Antennae		2307
Radio Sets, Parts and Equipment	2306	Reflectors, Plastic		1067
Radio Sets, Automobile	2306	Reformer Heaters		1985
Radioactive Material	2310	Refractories, as listed		2355
Rags, Synthetic Fibre	2312	Refractors, Plastic		1067
Rails, Door	1405	Refractory Brickbats, in Bulk		2357
Rails, Iron or Steel	1565	Refractory Cement		2355
Railway Car Material	2315	Refractory Moulded Shapes		2355
Railway Passenger Cars	2320	Refractory Spheres		2355
Railway Signal Material	2315	Refrigerated Cargo, as listed		2340
Railway Track Material, Iron or Steel	1565	Refrigerated Display Cases		2345
Railway Velocipedes	2315	Refrigeration Units for Trucks,		
Rakes, Hand	2845	Railroad Cars or Marine Containers,		2345
Rakes, Hay	70	Refrigerator Cabinets and Parts		2350
Range Hoods	2335	Refrigerators, Commercial		2345
Ranges, Household and Parts	2335	Refrigerators, Household and Parts		2346
Ranges, Industrial	1810	Refuse Collecting Bodies, Mobile		2353
Ranges, N.O.S	1800	Regulators, Voltage		1063
* Raspberries, Frozen	2340	Reinforcing Cloth, Glass Fibre		1325
Rayon Blankets	302	Religious Pictures		2207
Rayon Fabric, Non-Woven	1082	Remover, Paint		2047
Rayon Piece Goods	717	Remover, Rust		2536
Rayon Staple Fibre	2418	Renovators, Pasture		70
Rayon Waste	735	Repair Material, Tire, Rubber		2525
Rayon Yarn	3236	Replacement Parts, Truck Lift,		
Razors, Razor Blades, and Parts	2337	Tractor and Roadmaking		2866
Reactors, Current Limiting	1063			
Reagents, Flotation	1178	•		
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**Per Telegraphic Filing of July 7, 1981				
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For Explanation of References See Page 3

U.S. Atlantic & Gulf/Australia - New Zealand Conference			Orig./Re	<u>"</u>		
			9th Rev	<i>7</i> .		
		Cancels	, ,			
Freight Tariff No. 4 F.M.C. No. 13			8th Rev	<i>'</i> .		
RÓM: Atlantic and Gulf Ports of the United States of America.  States of America.  TO: Main Ports in Australia and New Zealand as Insted in Rule 21 A and B, and Ports in the Society Islands. See Rule 21 for application to other ports.			Effective Dat ""July 14, 19 Correction			
		·				
Except as otherwise specifically provided, basis of rates is indicated as; W/M denoting per 2240 lbs. or 40 cu.ft. whichever produces the greater revenue or WT denoting per 2240 lbs.				New Zealand		
"C" denotes "CONTRACT" RATES "NC" denotes "NON CONTRACT" RATES	<u> </u>	Rate		and	ļ.	
Commodity Description and Packaging	Туре	Basis	Australia	Society	110	
Refrigerated Cargo, minimum charge per B/L \$6.50 higher than as named in Item No. 5 Exception to Tariff Rule 31(t).	1		\		23	
N.O.S.	NC NC	W/M W/M	351 50 413,50	353.75 416.00	l	
Bakery Products, Including Ingredients for production	C	W/M	261,75	264.75	1	
centil ciconorel instantik influenzina tot hisosettori	NC	W/M	307.75	311.25	1	
Beef, Frozen, Bonelss and Bone In (Small Cuts), in Cases, Cartons, Crates FREIGHT MUST BE PREPAID	O NC	100 lbs	21.50 25.25	21.75 25.50	-	
Concentrated Citrus Juices	C	WT	279.50	285.25	1	
	NC	WT	328.75	335.50	ļ	
Candy	C	W/M	248.25	251.25	1	
Cherries, Frozen	NC C	W/M WT	292.00 359.00	295.50 359.00	ļ	
NOTE: When shipped in carriers' 20' containers moving pier to house shall be subject to a minimum utilization of 20,000 libs, for a 20' container. Not sub- ject to the Utilization Requirements of Tantf Rule 31(c)1A.		WT	423.25	423.25	ļ	
Corn, Frozen	1 c	wr	262.00	ľ		
Com, Floren	NC	wt	308.00	Ì	1	
Fish, Frozen, Cooked, in packages including Fishslicks, Fish and Chips and Raw Frozen Fish Blocks	C	100 lbs	18 25 21 25	18 25 21.25	1	
NOTE: When shipped in carriers 20' containers moving house to house shall be subject to a minimum utilization of 750 cu.ft. per 20' container. Not subject to	C	W/M	190.75	190.75		
the utilization requirements of Tariff Rule 31(C)1A	NC	W/M	224 25	224.25	1	
Fish, Frozen Fillets, Solid Pack	C	MIM	295.75	298.75	1	
A company of the contract of t	NC	W/M WT	347 75 336 50	351.25	1	
Frozen Strawberries	NC NC	WT	395.75	Ì	1	
NOTE: When shipped in carriers 20' containers moving house to house shall be sub- ject to a minimum utilization of 23,500 lbs. for a 20' container. Not subject to the utilization requirements of Tariff Rule 31(C)1A.		""	333.13			
Fruit or Vegetables, Frozen	łc	WT	360.75	365 75	1	
Art Ar	NC	WT	424 25	430 25	ł	
Gum Base, Chewing	C	W/M	264 50	i	1	
0 = 0	NC	W/M W/M	311 00 288 25	291.50	1	
Gum, Chewing	C NC	W/M	339 00	342.75		
Okra, Frozen	l c	WT	360.75			
When shipped in carriers 20' containers moving house to house shall be subject to a minimum utilization of 20,000 lbs, per container. Not subject to the utilization	NC	WT	424.25			
requirements of Tariff Rule 31(c)1A	1	ì	Į.	Í	1	
P) Orange Juice Concentrate	C	WT	271 00	271.00		
	NC -	- WT	318.75	318.75	1	
Peanuts, Not in Shell	C NC	WT	272.50 320.50	308.50 362.75	1	
	1	۱"'	320.50	302./3	Į.	
(Cont.q)	1	l	ł	ł	L	
					1	

For Explanation of References See Page 3

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U.S. Atlantic & Gulf/Australia -  New Zealand Conference			9th Rev. Cancels 8th Rev.		326 Page 326	
Freight Tariff No. 4 F.M.C. No. 13						
FROM: Atlantic and Gulf Ports of the United TO: Main Ports in Australia and New Zealan States of America.  TO: Main Ports in Australia and New Zealan listed in Rule 21 A and 8, and Ports in Society Islands. See Rule 21 for applica to other ports.		d as	Effective Date "November 14,			
		tion			, 198	
			Correcti	0A	198	
Except as otherwise specifically provided, basis of rates is indicated as; W/M denoting per 2240 lbs. or 40 cu.ft. whichever produces the greater revenue or WT denoting per 2240 lbs.				New Zealan		
"C" denotes "CONTRACT" RATES "NC" denotes "NON CONTRACT" RATES	,			and	1	
Commodity Description and Packaging	Туре	Rate Basis	Australia	Social Island		
Refrigerated Cargo, minimum charga per B/L \$6.50 higher than as named in Item No. 5, Viz.: (Cont'd)					2	
Cosmetics, Toilet Articles, Finished or Unfinished Products	c	W/M	290.00	295 00		
Not subject to Temporary Supplement No. 3  Photographic Apparatus, Equipment, Material, Supplies and Products used solely	NC	WIM	341.00	347.00	1	
for Photographic Application, Manufacturing or Processing, and so described in Bill of Lading, not including articles restricted to "on deck" stowage	C NC	W/M WM	322.50 379.25	324.50 381.75		
When shipped in carriers 20' containers house to house each to Australia \$3,363.25 Contract, \$3,956.75 Non-Contract. To New Zealand \$3,489.00 Contract, \$4,104.75 Non-Contract, plus an additional charge of \$1.75 per cubic foot for each cubic foot of refrigerated cargo. An additional charge of \$15.00 per Ion is to be assessed for each ton of cargo shipped in a 20' container. Subject to Tariff Rule 26.						
Plastic Sheeting	C NC	W/M W/M	248.00 291.75	253.00 297.50		
Potatoes, Frozen	C NC	100 lbs 100 lbs	14.00 16.25	13,75 18.00		
Raspberries, Frozen Temporary Rate Expires November 30, 1981	0 NC	WT WT	236 00 277.50			
Ready-to-Eat-Foods, Frozen, N.O.S.	C NC	W/M W/M	263.00 309.25	264.75 311.25		
Scallops, Frozen	C	100 lbs 100 lbs	16.25 19.00			
Sea Food, Frozen, N.O.S.	C NC	100 lbs 100 lbs	20.00 23.50	18.00 21.00		
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For Explanation of References See Page 3

#### \* Primera in U.S.A. U.S. Atlantic & Gulf/Australia -Orie./Rev. Page 12th Rev. 393 New Zealand Conference Cancels Page Freight Tariff No.4 F.M.C. No. 13 11th Rev. 393 FROM: Atlantic and Gulf Ports of the United TO: Main Ports in Australia and New Zealand as Effective Oate States of America. listed in Rule 21 A and B, and Ports in the Society Islands. See Rule 21 for application "October 14, 1981 to other ports. Correction PROJECT RATES TO NEW ZEALAND CONTRACT NON-CONTRACT RATE RATE (Pt) New Zealand Batching Plant Project - Batching Plant and Parts. The aforegoing rate is subject to the following Notes: W/M \$193.00 \$227.00 Note 1: Rates are subject to heavy lift and long length charges shown in Tarill Rules 4 & 5 Note 2: Rates are subject to Tariff Rule 25 - on under deck at carriers' option, and if on deck at shipper's risk Note 3: For the aforegoing rates, terms and conditions to apply, the ocean bill of lading must state: "New Zealand Batching Plant Project" and show the following clause: "Not commercial cargo, not for re-sale. Ultimately either to be consumed during or incorporated into construction, erection or expansion of the project, or removed from New Zealand or disposed of locally for salvage value only." Temporary Rate Expires November 30, 1981 Butter, to Auckland, New Zealand (See Notes 1 & 2) When shipped in carriers 20' containers moving on a pier to house basis only - berth terms to stack Auckland. Rate includes surcharges in effect at time of shipment. Cargo to be received at loading terminal-terminal depot as getined in Tarriff Rule 31A not more than four (4) working days prior to loading. All costs to this point for account of cargo. Vesset is responsibility ends when container is placed in container stack at discharge terminal. If container is not returned within fifteen (15) working days, detention charges Lumosum will accrue at a rate of \$5.00 per 20' container per day or fraction thereof. Not Subject to Rule 31(L)3A. per 20' Container \$2,350.00 When shipped in carriers 20' containers moving on a house to house basis only - berth terms to stack Auckland. Rate includes surcharges in effect at time of shipment. Containers to be packed by shipper at cold store within the urban area of the respective loading port and delivered to the carrier not more than four (4) working days prior to loading. Pick up of empty container, packing and transportation to Lines' terminal for account of cargo, If container is not returned within fifteen (15) working days, detention charges Lumpsum will accrue at 8 rate of \$5.00 per 20' container per day or fraction thereof. Not Subject to Rule 31(L)3A. Container \$1,800.00 Note 1: Not subject to the Allowance Provisions of Tariff Rule 31(C) Note 1 and the utilization provisions of Rule 31(C)1A. Note 2. The above rate also applies for vessels calling New Plymouth -Direct Call only. Not subject to Rule 21 - Direct Calis Temporary Rate Expires December 31, 1981

\*\*Per Telegraphic Filing of October 14, 1981

Printed in U.S.A.

## U.S. Atlantic & Gulf/Australia -New Zealand Conference

## Freight Tariff No. 4

F.M.C. No. 13

Orig./Rev. Page 3rd Rev. 394 Cancels 2nd Rev. 394

FROM: Atlantic and Gulf Ports of the United States of America.

TO: Main Ports in Australia and New Zealand as listed in Rule 21 A and B, and Ports in the Society Islands. See Rule 21 for application to other parts.

Effective Date \*\*October 8, 1981 Correction

NON-CONTRACT RATE

### PROJECT RATES TO NEW ZEALAND

When shipped in carriers 20' containers moving on a pier to free out Auckland basis only. Rate includes surcharges in effect at time of shipment. Cargo to be

basis only. Nate includes successive in effect at time of shipment. Cargo to be received at loading terminal/terminal depot as defined in Tariff Rule 31A not more than eight (8) calendar days prior to loading. All costs to this point for account of cargo. Vessel's responsibility ends when container is lifted from vessel at discharge terminal. If container is not returned within fifteen (15) working days, detention charges will accrue at a rate of \$5.00 per 20' container per day or fraction thereof. Not subject to Rule 31L3A.

Butter, to Auckland, New Zealand - See Notes 1, 2, 3 & 4

When shipped in carriers 20' containers moving on a house to free out Auckland basis. Rate includes surcharge in effect at time of shipment. Containers to be packed by shipper at cold store within the urban area at the respective loading port and delivered to the carrier not more than eight (8) calendar days prior to loading. Pick up of empty container, packing and transportation to Lines' terminal for account of cargo. If container is not returned within fifteen (15) working days, detention charges will accrue at a rate of \$5.00 per 20' container per day or fraction thereof. Not subject to Rule 31L3A.

NOTE 1: Not subject to the Allowance Provisions of Tariff Rule 31(C) Note 1 and the utilization provisions of Rule 31fC)1A.

NOTE 2: The above rate also applies for vessels calling New Plymouth - direct call only. Not subject to Rule 21 - Direct Calls.

NOTE 3: Carriers to control vessel schedule and working programs.

NOTE 4: Cargo to be delivered to the carrier at a temperature not exceeding 10 degrees Farenheit.

Temporary Rate Expires December 31, 1981

imp Sum Per 20' Container

BASIS

\$2,200.00

Lump Sum Per 20' Container

\$1,650.00

\*\*Per Telegraphic Filing of October 8, 1981

For explanation of references see Page 3.

Mr. OBERSTAR. Why was there a reduction in the rates?

Admiral SHEAR. There is negotiation between our lines, specifically the Farrell Lines and the New Zealand Dairy Board with regard to competitive rates.

Mr. OBERSTAR. How much cargo in this particular sale so far has

been carried by Farrell Lines?

Admiral Shear. Approximately 40 percent of that which has been carried so far, I think it is 13,000-odd tons.

Mr. Oberstar. 13,000 tons represent 40 percent of the amount? Admiral Shear. No; that is the amount that has been shipped so far, and U.S.-flag vessels have carried approximately 43 percent of that tonnage, with a total of 87,000 remaining to go.

Mr. OBERSTAR. The amount that Farrell has carried is 43 per-

cent, is 13,000, not 43 percent representing 13,000?

Admiral Shear. That is correct.

Mr. Oberstar. You have referred in your statement to 1979-processing by MARAD of ocean bills of lading for Export-Import Bank, civilian agencies, and foreign military sales shipments.

Have you found any instances in that review of Federal Government agencies that have not complied with cargo preference laws?

Admiral Shear. By and large, that review showed that the cargo

preference laws were being carried out effectively.

I don't have any specifics of any violations of the law in that review.

I can provide, however, any possible areas where there was any questions.

Mr. OBERSTAR. Does that also apply for the 21,500 additional bills of lading for military assistance program cited in your statement? Admiral SHEAR. Yes, it does.

Mr. OBERSTAR. How would you characterize military compliance, 100 percent, less than 100 percent?

Admiral SHEAR. By and large, the military compliance is close to

100 percent.

Mr. OBERSTAR. Now, when Export-Import Bank and civilian agencies of government have cargo for international trade, how does MARAD find out about that cargo moving, and when does the agency find out about it?

Admiral SHEAR. We find out about it in a timely manner through our direct liaison with the agencies themselves, and

through our contacts with the shipping industry.

Mr. Oberstar. Now, you refer on page 3 to a computer-aided monitoring system, and an interagency liaison program.

Obviously, that program broke down on the butter sale, and the

computer must not have been working.

Admiral Shear. It really was not a breakdown. In that particular case, since they were not recognized as far as the Department of Agriculture is concerned as preference cargo, they didn't show up on bills of lading.

Mr. OBERSTAR. That is precisely the point, so that the information that the agency at the Maritime Administration is getting, is

what other agencies want to filter on to MarAd.

How do you go behind the information and find out as we are finding out here after the fact that another Government agency has in fact disregarded the law or interpreted it in a way to serve

its own purposes?

Admiral SHEAR. We have to depend on our own liaison, plus our contacts with other aspects of the agency which are aware of shipments which are made.

In my short time onboard, which is less than a month, I have been pressing to find out whether those contacts are adequate enough to make sure that we keep up exactly with what is going on.

Mr. Oberstar. I am glad to hear that, because it seems to me if USDA is spoon feeding the agency something in order to expedite whatever purpose it has, in all probability that could be occurring in other exchanges of commodities, sales or dealings of other Government agencies, so that they could very well simply be telling MARAD what they want to tell and doing their job the way they want to do it.

I hope that there will be a very intensive review, and not only that, but that the Chair will call Maritime Administration back before this committee within a reasonable period of time to find out what steps have been taken so we do know there is more than just lip service being paid to the cargo preference laws.

Admiral Shear. In this specific case, the New Zealand butter, we were aware of it and did have discussions and approached the Department of Agriculture before the sales were made. We do have quite good liaison with the various departments or organizations in the Government who are involved in significant foreign sales.

Again, I am reviewing to make sure that what we do have is in

fact thorough enough to carry out our responsibilities.

Mr. Oberstar. This is something I believe the committee wants to impress upon the Maritime Administration and the Reagan administration, the other departments of Government without regard to current administration leadership, that this committee will continue to review actions of the U.S. Government that affect the Nation's maritime capability.

We have had innumerable hearings in this committee over the years on the means of strengthening the merchant marine, building more ships, getting more jobs for American merchantmen and of increasing the share of that \$135 million in annual foreign trade that moves back and forth between this country and others for American merchant fleet, and I find it frankly very distressing.

Not only did the Department of Agriculture sell this butter at below world market price, in effect subsidizing the New Zealand Dairy Board, they didn't even achieve their foreign policy objective that was set down by the State Department of not getting the butter into the hands of the Russians, but they subverted the American merchant marine in the process and tied the hands of American dairymen.

That is not your responsibility but there is a whole chain of circumstances tied to this sale that reflect, I think, very adversely on our foreign agricultural, our foreign sales policy in this Government, and I commend the chairman for holding these hearings.

I am very pleased with your statement that the Maritime Administration is going to take steps to look behind the information

provided by the other Government agencies and see that our cargo preference laws are in fact being complied with.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. Oberstar.

Admiral, I have one or two final questions, if I might.

Please describe the efforts by the Maritime Administration and the Department of Transportation in trying to get the U.S. Department of Agriculture to comply with cargo preference in this particular case. Let me say before you answer that, early on I contacted your able Secretary, Mr. Drew Lewis, a strong personal friend of mine, who became quite concerned about this matter, and I am positive he used his influence to see what could be done and contacted Mr. Block and found a sympathetic ear there, all this trying to be done for the merchant marine's well being.

I am a little concerned that at the level of the two Secretaries, they couldn't get this worked out. No criticism of either, because they were very receptive and both concerned, but it is alarming to me that here we are giving to a foreign nation, New Zealand in question, our goods and so forth and so on, and yet they have the

right to dictate to some degree who the carrier shall be.

It is totally inconsistent with the strength of this Nation and surely we have not digressed to that point; at least I hope not.

Relate to the committee what your administration and the De-

partment of Transportation did in negotiating with USDA.

Admiral Shear. Shortly before the transaction was announced, the Maritime Administration staff entered upon a series of discussions with the Department of Agriculture staff, and we subsequently notified them by letter of our position.

There were also exchanges of the legal opinions of the general counsels of two agencies and subsequently the issue was discussed between the Secretary of Transportation, Mr. Drew Lewis, and the

Secretary of Agriculture, Mr. John Block.

Then, more recently, the subject was discussed in more depth between myself and Deputy Secretary Richard Lyng.

Now, why weren't we able to resolve the issue as it was pending

at that time? I will be very frank about that.

I think basically because the contract was off and running, if you will. The agreement had been reached. It was a contract which had been achieved by the New Zealand Dairy Board and we couldn't at that stage change it.

We were able to work out the informal arrangements which is

going to result in our getting essentially 50 percent of that cargo. Admittedly, in an informal way, but I think it is clearly understood now, certainly at the senior levels of the Department of Agriculture, that we are going to insist on getting a fair share of this cargo. As far as this particular case is concerned we are going to get very close to that 50 percent if not the full 50 percent. More importantly than that, I am absolutely convinced that we now have established at the top levels a relationship and a coordination and cooperation which is going to prevent any similar cases from developing in the future.

In other words, we are going to get on top of them from the very early stages before contracts are let or before significant discus-

sions are held with foreign nations.

The Chairman. Thank you, Admiral, and you have already answered my next question which was, do you believe that this relationship can improve or is improving between Transportation and other Departments?

I think your answer to that would be a very categorical yes, and I would like to commend you publicly for taking steps to remedy this recurring problem so quickly and forcefully upon becoming

Maritime Administrator.

Although I have worked with USDA people for 15 years as a member of the House Agriculture Committee, and have a deep admiration for each and every one that I have ever known, and I have no doubts that they would stand by their word, but I must point out that the individuals there now will not be around forever, and this new found cooperation could dissipate when they leave.

One reason for this hearing is to get this cooperative spirit aired in public and noted in the record so it will be available for future

reference.

You indicate you are sure of USDA's cooperation from now on, but do you have any more concrete assurances of this than the in-

formal agreement or is there any in the making?

Admiral Shear. At present our understanding consists of the informal agreement to consult and discuss, which I have already mentioned. There are no additional formal, written agreements between the Department of Agriculture and the MarAd.

At this time I do not believe a memorandum of understanding

between the two departments is required.

The CHAIRMAN. Thank you, Admiral.

Finally, could you give this committee a reassurance that the administration is committed to enforcing to the very extent of the letter of the law the existing cargo preference law fully and vigorously?

Admiral Shear. The best way to do that is to quote what Drew Lewis had to say a few weeks ago in a public statement, specifically

on October 16.

He said as follows:

Realism and economic self-interest compels us to recognize that the world of international shipping is far from free. A web of restrictions, both visible and invisible, seriously impedes the efforts of U.S. carriers to generate the cargo required just to stay in business.

In response to this situation, the United States has some modest requirements reserving cargo for our own vessels. In view of the business adversities mentioned, it is questionable whether they are sufficient. It is quite clear, however, that these ex-

isting laws are vital to our survival in the international arena.

Be assured that we will vigorously endorse them.

The CHAIRMAN. Admiral, thank you very much for your testi-

mony, and your two aides with you.

We are delighted to have you here and, as chairman of the committee, I feel somewhat more reassured than I did at 2 o'clock when we started these hearings, and I want to repeat my deep admiration for the Secretary of Transportation as well as his staff for the fine job you are doing to try to help your merchant marine fleet.

Admiral SHEAR. Thank you.

The CHAIRMAN. Our next witness is Richard A. Smith, Administrator, Foreign Agricultural Services, Department of Agriculture.

We are delighted to have you here this afternoon.

STATEMENT OF RICHARD A. SMITH, ADMINISTRATOR, FOREIGN AGRICULTURAL SERVICES, DEPARTMENT OF AGRICULTURE, ACCOMPANIED BY JAMES F. HINCHMAN, ASSOCIATE GENERAL COUNSEL, U.S. DEPARTMENT OF AGRICULTURE, AND DANIEL E. SHAUGHNESSY, DEPUTY ASSISTANT ADMINISTRATOR, FOREIGN AGRICULTURAL SERVICE, USDA

Mr. Smith. It is a pleasure to be here to discuss the New Zealand butter deal.

I have with me on my right Mr. Hinchman, who is with our Office of General Counsel, and Mr. Shaughnessy, on my left, who is on my staff and works on the ocean transportation and food aid side of our work.

The CHAIRMAN. Thank you.

Mr. Smith. We have a prepared statement which we would like to submit for the record, if it is OK with the chairman. I thought I would proceed and give a brief summary of reasons for the sale and try to talk to some of the points that have been raised here this morning.

The Chairman. Without objection, the full report of the Department of Agriculture will be inserted in the record at this point.

[The statement of Mr. Smith follows:]

# STATEMENT OF RICHARD A. SMITH, ADMINISTRATOR, FOREIGN AGRICULTURAL SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Secretary Block regrets that a prior commitment prevents him from meeting the Merchant Marine and Fisheries Committee today, but he thanks you for your invitation. He asked me to appear in his stead.

Because Chairman Jones asked that we respond specifically to several questions about administration of the Cargo Preference Act, Public Law 83-664, in connection with the recent sale of surplus butter by the Commodity Credit Corporation (CCC) to the New Zealand Dairy Board (NZDB), I have with me today several staff members from the Foreign Agricultural Service and the Office of the General Counsel who are acquainted with both the butter sale to New Zealand and with the Cargo Preference Act. We will be happy to answer any questions at the conclusion of my statement.

I should like to proceed by first giving you a quick rundown on the sale and the reasons for it, how and why it was sold to New Zealand, and under what terms. Then I'll do my best to answer the half-dozen questions posed in Mr. Jones's letter of October 28, 1981, to Secretary Block.

When this Administration took office in January, it was faced with a butter mountain that has been growing ever higher since passage by the Congress of the Food and Agriculture Act of 1977. The '77 legislation had raised the minimum support level for milk from 75 percent of parity to 80 percent, and had required semi-annual support price adjustments to reflect changes in the parity index. Subsequently, dairy farmers significantly boosted their output. In February 1980, for the first time in 28 years, milk cow numbers exceeded the level of a year

earlier. Herd sizes and per cow production increased. The sharp decline in the number of dairy operations slowed down. Milk production in 1980 set a record for one year -- 4 percent higher than in 1979.

By January of this year, milk production had significantly exceeded domestic commercial needs for the past year and a half, and producers were geared to go even higher. With more cows and greater output per animal, milk production rose 3.4 percent in the first seven months of 1981 as compared with the same period a year ago.

The CCC, which maintains the pricing of milk at support level by buying butter, cheese, and nonfat dry milk, was forced to increase its already
heavy purchases. Butter purchases jumped 205 percent last year to about 260
million pounds. The CCC bought more butter in the first six months of this year
than in all of 1980. By the end of June, CCC owned about 430 million pounds
of uncommitted butter stocks, and the Department estimated that these stocks
would increase to more than 500 million pounds by October 1.

The cost of dairy support activity is not insignificant. The value of the 430 million pounds of butter represented an outlay of more than \$605 million. The annual storage bill for that much butter is about \$15 million. Estimated annual interest charges on CCC borrowings to acquire and store this quantity of butter total approximately \$90 million.

So, early this year — as a long-term remedy — the Administration proposed to the Congress that the 1981 farm bill provide for dairy supports at a more realistic level. But for immediate amelioration of the crisis, the CCC, on August 5, agreed to sell 100,000 metric tons of its uncommitted butter stocks to the New Zealand Dairy Board for \$155 million. That is 220 million pounds of butter at about 70 cents a pound, delivered at warehouse.

We had taken the New Zealand route only after surveying all the options. CCC policy precludes the sale of butter domestically at less than 110 percent of the purchase price. In any event, undercutting the wholesale domestic price of butter would disrupt rather than promote market stability, which is a principal objective of the support program. Further, it would only result in CCC acquiring an equivalent quantity under the support program. Domestic domation programs, including school lunches, use only about 110 to 155 million pounds a year. Therefore, we turned to the foreign market.

Because the U.S. support price is 40 cents or more over the world price for butter, any sale into the world market would have to be at a price less than the CCC's acquisition price, and, therefore, would be at a subsidized price. But to unload 220 million pounds of subsidized butter on the market would have negated years of hard, educational negotiations aimed at reducing the subsidies and trade barriers employed by our trading partners. Under the General Agreement on Tariffs and Trade (GATT), the United States is obligated to report any subsidy it grants and any subsidized sale it makes must not result in the United States having more than an equitable share in world market trade for that subsidized product.

The sale to the New Zealand Dairy Board was made in part because it was likely to pre-empt any GATT complaints that we were shipping subsidized products into traditional markets. Also, the Dairy Board, one of the leading world traders of butter and butter oil, has the expertise and the incentive to manage the movement of this butter into international markets in a non-disruptive way. EC butter stocks were at their lowest level in several years, and in June were one-half of year-earlier levels. We felt that 220 million pounds of subsidized butter sold in this way would not displace exports from another GATT member in 1981 and could be defended as not violating our GATT obligations.

Another problem we faced in our butter sale into foreign markets included the fact that U.S. butter contains salt and has a minimum butter-fat content below that required by foreign buyers. Finally, we did not want to sell butter to the Soviet Union because we did not want to send - a signal that might be misinterpreted during a tense period in foreign relations.

So the sale to New Zealand offered the best solution to these problems.

First, we were able to dispose of half of our inventory of butter including our older stocks, in one stroke. Second, we would not distrupt domestic or foreign markets and finally, the Board gave its assurance that it would not sell the butter to the Soviet Union.

Now, let me turn to the questions asked by Chairman in his letter of October 28.

1. The butter sale to New Zealand was concluded under legal authorities for the disposition of commodities in the CCC inventory, which are found in Section 407 of the Agricultural Act of 1949, as amended, and in Section 4 and 5 of the CCC Charter Act, as amended.

Aside from the sale to New Zealand, CCC has made three other sales out of CCC stocks in the past three years, all in 1981 to Poland. The first sale was for 66 million pounds of butter in April. Catholic Relief Services bought about 7 million pounds of butter in August for shipment to Poland, and, on October 28, Poland purchased 22 million pounds of butter, 22 million pounds of nonfat dry milk, and nearly 18 million pounds of processed cheese.

2. CCC sold to the New Zealand Dairy Board 220 million pounds (10 percent more or less at the buyer's option) of up to 40-month-old butter at 70.3 cents per pound (\$1,550 per metric ton) delivered at warehouse. The contract contemplated conversion of the butter into butter oil and a price

adjustment was to be made if the butter was sold as butter. There was also a provision for equitable adjustment of the price in the event of a major change in international market price during the period of the agreement. The Dairy Board is required to take such precautions as are necessary to prevent reentry of the butter into the United States. The Board agrees not to sell the butter to the USSR. Except for official aid or for restricted welfare uses, CCC agrees not to sell for export any butter until July 1982, unless approved by the New Zealand Dairy Board.

It is difficult to make any comparision between the terms of this contract and contracts with other buyers or other commodities under these authorities because of the magnitude of this sale and, as I have indicated in may testimony, sale of dairy products present particularly difficult problems for the United States.

In setting the sales price, the forlowing assumptions were made with relation to the costs of ocean transportation: freight charges from U.S. ports to Antwerp, \$160/MT; stowage and port costs at the port of exportation, \$60/MT; inland freight charges from the warehouse to the port, \$70/MT. Although only a small amount has been shipped thus far, we still feel our assumptions are correct.

3. The New Zealand Dairy Board is a producer cooperative controlled and operated by dairymen. Its principal function is to organize the exportation of manufactured dairy products. Policy is set by 11 members elected by the dairy industry and two members appointed by the Government of New Zealand. Although the Board is established by act of Parliament and has statutory authority to market all of New Zealand's dairy exports, it is an independent entity. Proceeds from export sales are returned to New Zealand dairymen through the dairy manufacturing cooperative.

4. As of October 31, 8,368 metric tons (18.5 million pounds) of butter had been shipped from deliveries made by CCC against the contracts with the NZDB. Of this total, 5,786 tons had been shipped to New Zealand on vessels operated by the Atlantic-New Zealand Conference, with 2,033 tons being carried by one U.S. flag line in the Conference. The balance of 2,582 tons was shipped to Surope from Great Lakes ports, where the only suitable carriers are non-U.S. flag. All shipments, save for 36 metric tons shipped in September, were made during October.

Last week (November 2), the NZDB issued the following statement pertaining to shipping arrangements for this butter sale: "The New Zealand Dairy Board is a party to the Shipping Conference for trade between North America and New Zealand. This Conference includes a U.S. flag line operator. Noting the interest of the U.S.A. authorities in having maximum shipments of U.S.A. products in U.S.A. vessels (and the New Zealand Dairy Board sharing the objectives of developing mutual trade and interests), the Board will make every endeavor compatible with its manufacturing program and arrival requirements to meet the wishes of U.S.A. authorities in this matter.

5. USOA concluded that cargo preference need not be imposed in the sale in question because the Cargo Preference Act (Public Law 664, 83rd Congress) applies only to concessional sales and not to commercial transactions. In general, a commercial sale is a sale made under the best terms and conditions obtainable. It was our determination that the sale to the New Zealand Dairy Board represented the best terms and conditions obtainable under the circumstances. The sale was not a concessional transaction, nor was it made to assist the economy of New Zealand. It is our view, therefore, that Public Law 664 does not apply. It is also our position that Public Resolution 17 does not apply. Deputy Secretary Lyng sent a copy to Chairman Jones on October 8 of an opinion of the USDA General Counsel indicating that both Public Law 664 and Public Resolution 17 did not apply to this New Zealand butter sale.

Although there is no legal requirement that the butter be shipped on U.S. flag vessels, we support the Administration's commitment to the U.S. merchant fleet, and therefore we sought arrangements under which the Dairy Board would give equal access to U.S. vessels for shipment under this sale.

6. There are 199 million pounds of uncommitted butter currently in storage under USDA control, 548 million pounds of cheese, and 828 million pounds of non-fat dry milk — all 1980 and 1981 production. Storage costs for one year are \$7.2 million for the outter, \$16.2 million for cheese, and \$7.7 million for NFDM, or an annual total of \$31.6 million. Annual interest charges total \$277/million.

All dairy products are perishable. The dairy industry does not store products for more than six months to one year, but CCC has kept NFDM and butter up to three years without serious deterioration. Cheese, which is more perishable, is subject to mold, and some mold is developing in the cheese inventory. The maximum length of storage for cheese is not known-

The CCC presently has an uncommitted inventory of wheat, corn, oats, barley, rye, grain sorghum, cotton, and refined sugar. The grain inventory under USDA control currently totals about 247 million bushels, on which the annual storage cost is about \$74 million. There would be substantial interest costs for these stored commodities. Properly managed, top grades of grain can be stored for years. CCC is authorized to sell most grains only at or above specified minimum prices, except for purposes of rotating stocks and inventory management. At the present time, market prices for these grains are approximately \$1.00 per bushel below those statutory minimum levels.

Thank you. We shall be pleased to answer any questions you may have at this time.

Mr. Smith. Mr. Chairman, I won't get into a lot of detail on why we made this sale to New Zealand. There was a hearing held by the Agriculture Committee in which we went into quite a bit of detail on that.

Basically, the problem is that we have seen a rapid accumulation of dairy stocks held by the Federal Government. This had reached the level of almost 500 million pounds of butter back last spring.

At that time we had to take a look at what to do about this problem. One of the first things we did was look at what we could do

domestically.

The conclusion was that there are very limited avenues for selling that butter domestically. If we did that, it would tend to undermine the price support program; you would be selling it on one side and have to be buying it on the other.

We look to the international market, and I think there are two

aspects of the sale that have to be considered.

The first one is foreign policy considerations, and the second one

is the trade policy obligations that we have.

Speaking first to the latter, we have traditionally and particularly in agriculture been opposed to other countries using export subsidies as a means of gaining increased share of their markets overseas:

I might mention particularly the European Economic Community which is a major agricultural exporter and one that has been exporting large quantities of agricultural commodities using subsidies. We have taken a rather vigorous stand against this practice.

It would have been very difficult for us to maintain any credibility if we just turned around and started selling dairy products on the world market at subsidized prices, without taking that into consideration.

One of the key problem areas we would have to face was New Zealand, which is a major dairy exporter and exports at world

prices.

In addition, on the foreign policy side, there are two aspects to that. The one that was of considerable concern was that if we put this butter up for sale, there is probably a good possibility that most of it or a good part of it would have ended up in the Soviet Union.

Based on the letters that I am getting, out of every 10 we get 9 from consumers in the United States asking why should the Soviets be able to buy butter in the United States at 70 cents and we can't buy it for less than \$2. It is a very serious issue, and one that concerns many consumers in this country.

The other aspect of it was the whole issue of subsidized sales to the Soviet Union, and the administration made the decision at that time that we didn't want such sales to the Soviet Union, and we

are bound by that decision.

In the course of all these deliberations, New Zealand and the other exporters made their views rather clear to us. There is a long list of messages and communiques that we have gotten. They were all submitted for the record at the Agriculture Committee hearing, and they basically indicated that if we went forward and indiscriminately sold this butter at subsidized prices on the world market, they would take us to the GATT.

That would have been the first case to be brought up under the Subsidies Code against the United States and it would not have been in our interest to be brought before the signatories under the Subsidies Code and lose such a case—a case of subsidized exports of butter.

So the New Zealand dairy board came forward and made the suggestion that they would be interested, in buying the butter, mainly because their foreign exchange is so heavily dependent on exports of dairy products. Their analysis was that if they could buy the butter and resell it, they would control the marketing of it, and in this way there would be a minimum disruption of world prices. They calculated that if the butter were sold indiscriminately on the world market that the reduction in world prices would have had a major effect on their balance of payments. This was really the motivating factor behind New Zealand coming and asking us.

We were interested because this resolved one of our major prob-

lems which was the trade policy side of it.

Concerning the foreign policy side, the New Zealanders also made the commitment that they wouldn't sell the butter to the Soviet Union and that would satisfy the foreign policy consideration.

We proceeded and negotiated the sale with them. There are a couple of points that may be causing some problems in interpreting

the cargo preference aspect of it.

We maintain, and we submitted to the record in the Agriculture Committee that that butter was sold at world prices. Many are quoting a \$1.05 price and comparing it to the 70 cent price at which we sold the butter to New Zealand.

What is not mentioned in this is that we sold old butter, salted butter, lower butter fat content butter, and also sold it at warehouses here in the United States. The \$1.05 is for unsalted, new

butter, higher butter fat content at European ports.

So when you take the \$1.05 and subtract the transportation, you correct for the fact that it has lower butter fat content, plus the fact that in order to sell a good part of it, it is going to have to be converted to butter oil to get the salt out of it, plus the fact that it was sold at warehouses here in the United States, the prices are very comparable.

The contention is made at times, if we sold this directly to the Soviet Union we might have gotten a better price for it. Nobody

knows that. That is pure speculation.

We had 200 million pounds of butter that we sold. There has never been a sale that size, and for someone to sit here and tell me, sitting down one on one with the Soviets, with them the only buyer, that we could have gotten a better price, is sheer speculation.

I don't think anybody can know for certain that that is the case. Mr. Smith. As far as we are concerned, what we got was the world price and very close to it. We made a sale in which we were able to take care of our foreign policy problems plus our trade policy problems and the latter are of major magnitude.

Concerning the 180-day payment that was part of the deal that we struck with New Zealand, New Zealand has not sold that

butter. New Zealand offered to take that butter without having a home for it. They are going to have to sell the butter somewhere.

Also, consider the fact they are going to take part of that butter to New Zealand and another part to Europe, they are going to have to have it reprocessed into butter oil, plus they are going to have to sell the butter. This is going to take quite a bit of time before they

are going to get paid.

We negotiated as part of the contract price that they won't pay us until there was a reasonable period when they are going to get paid. In some cases they may get paid earlier, in some cases later, but we felt this was a reasonable deal. If we hadn't negotiated that in there, we would have had to negotiate a lower price. This was

all part of the price package.

I might add that as a result of the concerns, and legitimate concerns of this committee and of the Maritime Administration, we did ask the New Zealanders to take into consideration the U.S. shipping lines. We wrote them a letter which we would be glad to submit for the record, in which we so specified, we had quite a few conversations with them. They have replied and it is in writing that they will do their best to use U.S. shipping lines based on the

competitive situation, and so forth.

I think the figures indicate they have already shipped about 40 percent of the butter on U.S. lines. And we would expect that to continue. We certainly in no way want to be in violation or willfully violate the Cargo Preference Act. We understand that is a legal obligation on our part. We have scrupulously enforced it in the case of Public Law 480. As a matter of fact, for the record we have the reports that the Maritime Administration submit to the Congress every year in which they so state that we have followed it to the letter of the law.

I think we have an honest difference of opinion here. We consider this a commercial sale; we sold this butter at commercial prices. As a result of that, I think in the testimony that preceded me it was indicated that a commercial sale, even if it is government-togovernment, does not require cargo preference. So I think this is really where the issue centers, and our contention is that it was a

commercial sale and we approached it on that basis.

With those remarks, Mr. Chairman, I would be glad to answer

any questions that the committee may have.

The Chairman. Mr. Smith, if it is not too inconvenient, the committee would appreciate you supplying a copy of the letter from your Department to New Zealand regarding the use of American vessels.

Mr. Smith. We will be pleased to do that, Mr. Chairman.

The CHAIRMAN. Thank you, sir.

As you know, in his letter of September 8, 1981 to this committee, Deputy Secretary of Agriculture Richard Lyng indicated that cargo preference did not apply to the butter sale to New Zealand because the sale was not concessional and that cargo preference applied only to concessional sales. Is this still the Agriculture Department's position?

I take it the Department has changed that position to some

degree, is that right, sir?

Mr. Smith. No.

My understanding—I will ask Mr. Hinchman to elaborate on it—is that the Department still considers that in commercial sales made out of the CCC, cargo preference does not apply. In the case of concessional sales, for example Public Law 480 sales, it clearly does and we intend to enforce that.

Mr. Hinchman?

Mr. HINCHMAN. Mr. Chairman, may I---

The Chairman. You are recognized.

Mr. HINCHMAN. Thank you, sir.

I think the fundamental issue which separates the committee staff from the Department with respect to the interpretation of the cargo preference laws as they apply to the New Zealand butter sale go to the proper interpretation of the Attorney General and other Justice Department opinions, which are for us at least the binding

basis for interpretation of the statute.

As counsel to the committee has ably and effectively explained, the staff used those opinions as relating only to cases in which the Department extends credit to domestic exporters and takes the view that in those cases in which that domestic export credit is passed through on a concessional basis to the importing nation that cargo preference applies, but that where it is not, where the domestic exporter sells at the best terms available, that is makes a commercial sale, the cargo preference does not apply.

The Department respectfully disagrees. We believe that the Attorney General's opinions draw a distinction even with respect to credit between concessional and nonconcessional sales, and that the opinions, taken as a whole, mean that cargo preference does not apply in cases even involving the extension of credit by the United States where the package, the sale taken as a whole is com-

mercial.

We are driven to that conclusion in part by the practicalities of the marketplace. In the case of our sale to New Zealand, the delay in payment was an essential part of the transaction and cannot be

separated from the price.

From the perspective of the New Zealand Dairy Board, the other two factors taken together determine what is the price they were prepared to pay for the butter. I, of course, cannot know what other transactions the New Zealand Dairy Board would have been prepared to make, but arguably it would have paid less if it had to pay earlier, and perhaps more if it could have paid later.

We understand the 180-day delay simply to be an integral part of what was, for us, a businesslike transaction, an effort to sell a substantial amount of butter under difficult circumstances at the best

price available

I would finally say that this disagreement with the committee is an honest one, it is our honest effort to understand as best we can what the Attorney General requires of us with respect to the administration of the Cargo Preference Act. To the extent we can be better educated as to Congress intentions in that regard, the Department is always of course prepared to carry out its responsibilities as it understands them.

Thank you.

The CHAIRMAN. Thank you. I have nothing but the highest respect for your Attorney General staff. But I suggest, sir, you also

might pay some attention to the intent of Congress when we write legislation.

Mr. Hinchman. Yes, sir.

The Chairman. I would remind you here that our staff I thought pointed out vividly this afternoon that the application of cargo preference, specifically Public Law 83-664, applies not only to concessional sales but also in cases with respect to the United States extending credit to a foreign nation, regardless of the circumstances.

Mr. Smith, let me say you did a pretty good job defending the whole butter transaction. I haven't heard too much criticism. It

probably hasn't reached the public yet.

Our concern this afternoon is the American maritime. If you can comply with the law of 50 percent, the chairman would be very grateful and I am sure the committee would. But getting back to your attorney, do you question the credit factor of that part of the statute? Isn't that plain, where you extended credit, if you extend credit for 6 months with no interest, when the interest rates in this country are 18, 19 percent for the average person?

I am not questioning the sale, I am just questioning the line

where you extend credit.

Mr. HINCHMAN. Yes, sir, Mr. Chairman. The Department believes that, even with respect to cases in which the U.S. Government's involvement is in the extension of credit, that if there is not a concessional element to the transaction the cargo preference does not apply. It is on that point that we disagree with the staff of the committee for the reasons I have tried to explain.

I will only say——

The CHAIRMAN. Excuse me.

Mr. Hinchman. No, excuse me, sir.

The CHAIRMAN. I didn't mean to interrupt you. Mr. HINCHMAN. I am sorry, sir; please go ahead.

The CHAIRMAN. Well, the thing that I think we are hanging our hat on here is your, the Department's sole attention and emphasis is on the concessional sales. But there are four categories of the Cargo Preference Act. One is equally as important as the other.

That is where your Department and this committee differ a great deal. We feel you have to look at the total context of the four sections of the Cargo Preference Act and, if any one of those sections applies, then the Cargo Preference Act will have to come into effect.

Mr. Sunia?

Mr. Sunia. I have no questions at this time.

The CHAIRMAN. Mr. Oberstar?

Mr. OBERSTAR. Thank you, Mr. Chairman.

I listened with great interest to the Secretary's defense of the administration sale, as for a matter often cited of not sending the right signal or wanting not to send the wrong signal to the Soviet Union. Hardly a few days later the United States was selling 15 million tons of wheat to the Soviet Union directly, not indirectly through some other party.

I applaud the sale. I think that is great. I think President Reagan as candidate campaigned on the right platform. Just callup the State Department to find out who is running things, you get Mr. Haig saying "I am in charge." That puts you in a very difficult

position.

I am not asking you to get another quarrel from Mr. Haig, he seems to have enough of his own problems as it is deciding who is in charge. But this dairy country, it sure rankles the wrong way with dairy farmers, as you must well be aware.

But it is true that even before selling to the New Zealand Dairy Board that the Department of Agriculture rejected an offer from a

U.S. firm of 87 cents a pound for the same butter, is it not?

Mr. Smith. Would you like me to comment on those points?

Mr. OBERSTAR. Fine, go right ahead.

Mr. Smith. I think you have to make one distinction between butter and wheat; butter is subsidized, wheat is not subsidized.

That is a major issue, one that I indicated——

Mr. OBERSTAR. Not from the standpoint of foreign policy, it makes no difference what signal you are sending to the Soviet Union, sell them grain or sell them butter, we are still selling to them. I think it is great, I think we should. I am for selling them anything they can't shoot back.

Mr. Sмітн. I agree with that.

Mr. Oberstar. But then in negotiating the arrangement, why did the Department take the position that you shouldn't defend—look

out for the interests of the American merchant marine?

Did it ever occur to anybody, was it ever discussed at any level of the negotiations, let's cut all this stuff aside of the law, which is clear, precise, specific, the history, the interpretations, the committee report that accompanied the act, cut that all aside, the Department is there as the agent of the U.S. Government representing all the interests.

Did it ever occur to anybody to say hey, there are American ships that ought to be carrying this cargo, we ought to make sure

some of that moves on American ships?

Mr. Smith. The answer to the question is yes, it was considered and discussed in quite a bit of detail. We could have done that, we would have had to sell it at a lower price. And our responsibility——

Mr. OBERSTAR. Why?

Mr. SMITH. If you are going to require the New Zealanders to tell them what kind of ships they would ship it on.

Mr. OBERSTAR. Did they say they would require a lower price?
Mr. Smith. Sure they did, if we put that requirement on them.

Mr. OBERSTAR. Did they say that in the negotiations?

Mr. Smith. Sure, when we were discussing it with them. Obviously our objective and our responsibility as we viewed it is to protect the assets of the corporation.

Mr. OBERSTAR. Why would it have to be sold at a lower price if

shipped in American ships?\_

Mr. Smith. Because of the higher cost of shipping.

Mr. OBERSTAR. How much higher, how much difference?

Mr. Smith. It depends on where it is going. To New Zealand the conference rates are pretty much comparable but for the stuff that is going to Europe there is a big difference.

Mr. OBERSTAR. For that amount of cargo moving on Farrell

Lines, are you having to reduce the price?

Mr. Smith. No, stuff going to New Zealand, it is going in conference, it is about the same rates.

Mr. OBERSYAR. So then it seems to me there was no justification

for the position.

Mr. Smith. But half of the butter is going to Europe and that is a different story. If we had required that amount to go on U.S. bottoms, there would have been a significant difference in cost.

Mr. OBERSTAR. It seems to me that the cause of American mer-

chant marine was not vigorously argued.

Mr. Smith. Well, that is correct.

If the Congress or whoever wants to make it the policy that it is the role of the Commodity Credit Corporation to, in essence, provide subsidies for the exports of agricultural commodities, provide subsidies to the merchant marine, that is a decision that can be made. Our interpretation of the law is that it doesn't apply, our responsibility is to protect the assets of the Corporation. It seems to me it is our responsibility to get the best deal we can for the CCC.

Mr. OBERSTAR. Was your reason that the cargo preference law did not apply related to the statement you just made that there were representations by the New Zealand Dairy Board that it

would cost more?

Mr. Smith. No, that this was a commercial sale and under the

statutes it doesn't apply. It is that simple.

Mr. Oberstar. Well, it clearly, according to the review that we have had, the conditions of the sale, and despite the statement you made earlier, it was speculative whether the Soviets would have bought at \$1.05 a pound, the fact that was the world price at the time.

Mr. Smith. That is not correct, Congressman.

Mr. OBERSTAR. I recognize the caveats you have put on about the character of the butter. But the fact is that this was sold at a very advantageous price for New Zealand, and if it wasn't they wouldn't

have bought it.

Mr. Smith. Congressman, I totally disagree, and we will provide for the record if you like, we have gone through the calculations in detail. And when you convert the \$1.05 price at European ports, that is for 82 percent butter fat, new butter, we sold old butter with salt in it, 80 percent butter fat at the warehouse here in the United States, when you work that all back through the system you come out to the price very close to the 70 cents.

And the reason New Zealand bought the butter was simply they did not want us to sell it on the market indiscriminately. They felt if they bought the butter, they would have control of marketing it, which makes sense, and they were willing to pay the world price

for it and they did.

Mr. Oberstar. At any time during any of these negotiations did anyone from the State Department consult with the Maritime Ad-

ministration and ask them their opinion on the sale?

Mr. Smith. Sure, there were discussions on it throughout the discussions of the sale; as a matter of fact, on this disagreement of whether it was a commercial sale or not, whether it applied or not.

Mr. OBERSTAR. Did the Maritime Administration state in their opinion this would have to comply with the Cargo Preference Act?

Mr. SMITH. Yes, from the beginning they have indicated in their opinion that cargo preference should be applied.

Mr. OBERSTAR. And USDA rejected that? Mr. Smith. We disagreed, that is correct.

Mr. OBERSTAR. But why do you consider this to be a commercial transaction?

Mr. Smith. We sold it at the world price and it was sold under commercial terms. Why wouldn't it be considered a commercial transaction?

Mr. Oberstar. For the many reasons that have already been discussed, but obviously the Department rejects those views.

Mr. Smith. That is correct.

Mr. OBERSTAR. And insists that it was purely a commercial transaction?

Mr. Smith. That is correct.

Mr. OBERSTAR. Despite other factors to the contrary.

Well, I am sorry that we disagree and apparently we can't per-

suade the Department of another viewpoint.

Mr. Smith. I might add that the Admiral indicated we certainly want to work with the Maritime Administration, we will be making sure in any transactions we have that they understand what is happening, and it seems to me this has to be thoroughly discussed in the future. But our position, unless there is some legal opinions to the contrary, is that in the case of commercial sales out of the Commodity Credit Corporation, cargo preference does not apply.

This does not mean that requirements can't be made for quantities to be shipped on U.S. ships, but we are just saying that the

cargo preference doesn't apply.

Mr. Oberstar. I would certainly be interested and I am sure the committee would like to have for the record the documentation you referred to supporting the contention that New Zealand would have insisted on a lower price had we insisted on the application of the Cargo Preference Act.

Mr. Smith. We would be pleased to.

Mr. OBERSTAR. I think that would be something very important for us to review.

What is the routine procedure for the Department in considering application of Cargo Preference Act on other commodity sales?

Mr. Smith. We have a staff that is aware of the cargo preference

We also consult with our general counsel on all these sales.

Mr. OBERSTAR. Are they routinely reviewed?

Mr. Smith. Yes, within the Department they are routinely reviewed to make a determination as to whether we feel cargo preference is applied.

I might ask Mr. Shaughnessy to elaborate since he is the one di-

rectly involved for that.

Mr. OBERSTAR. I would be happy to hear him.

Mr. Shaughnessy. Congressman, under our Public Law 480 program, we do administer cargo preference requirements, and insure that offerings are made to U.S.-flag vessels on every tender that is issued. And we have a full-time staff that is involved in trying to assure that U.S.-flag vessels do receive a proper share of the cargo.

In the course of these procedures, we work almost daily with the liaison staff in the Maritime Administration, whenever a questionable issue comes up as to whether a vessel should be selected, question concerning a rate, we are in close contact with the Maritime Administration.

And as Mr. Smith pointed out, the Maritime Administration has never found it necessary in its report to the Congress and to the President to find the Department in noncompliance with cargo

preference.

Mr. OBERSTAR. Is the same consideration given in determining the commercial or noncommercial status of a sale, as was given in the New Zealand butter sale?

Mr. Shaughnessy. Well, I was speaking principally to the admin-

istration view-

Mr. OBERSTAR. What standards are applied in making those determinations, whether a particular sale complies or is eligible for the coverage of the Cargo Preference Act?

Mr. Shaughnessy. I think perhaps Mr. Hinchman can elaborate

more on that.

Primarily, as Mr. Smith pointed out, where it is a commercial

sale it is our view that the cargo preference does not apply.

Mr. Oberstar. We have not heard any complaint about any other sale but there has never been one like the New Zealand sale either.

Mr. Shaughnessy. Yes.

Mr. Oberstar. Would the gentleman respond further?

Mr. Hinchman, Yes, sir.

I think Mr. Shaughnessy has accurately stated the views of the Department on this question. It once again returns to the point where I began, that we understand the Attorney General's and the Justice Department's opinions to require us to take the view that cargo preference applies only in those cases in which there is a concessional element in the transaction.

Mr. Oberstar. Then the Department has a rather unusual deter-

mination or interpretation of concessional from time to time.

Mr. HINCHMAN. I hope it is an interpretation which is within the statute, sir.

Mr. Oberstar. Let's say it is an interpretation which happens to fit the policy.

Thank you, Mr. Chairman.

The Chairman. Thank you, Mr. Oberstar.

The Chair is going to recognize counsel for a few brief questions at this point in time, as it relates to the legal interpretations. Mr. Welch. Thank you, Mr. Chairman.

Mr. Smith, you indicated that during the negotiations for the contract that you were in touch with the Maritime Administration and they indicated their belief cargo preference applied and you indicated your belief that the statute was not applicable. Did anybody consult with the Attorney General as to what his belief was on this particular case?

Mr. Smith. No, the answer is no.

Mr. Welch. Is it fair to summarize the disagreement between our committee staff and your general counsel as your general counsel maintains that the cargo preference statute applies only when the sale is concessional while we assert that if any one of four categories applies, cargo preference is required? Is that a fair assessment of the disagreement?

Mr. Smith. Yes.

Mr. Welch. Does your general counsel have any reaction to the language in the 1954 House report on the Cargo Preference Act that specifically sets out four categories where cargo preference applies, rather than just one category?

Mr. Smith. I will ask him to answer that since he is sitting here. Mr. Hinchman. We are of course aware of the language of the

House report.

As I had indicated earlier, at least for the Department, within the executive branch it must look to the Justice Department and the Attorney General as the principal source of interpretation of this provision. We believe that the Attorney General's opinion in 1963, and the subsequent opinion of the Assistant Attorney General for legal counsel in 1965, are fairly clear on this point.

We understated that the committee staff takes a different view. I do not know that there is any purpose to be served by my going into lengthy quotations from those opinions which are the basis of our view. I would only say briefly that the committee draws a distinction between credit that is extended to domestic exporters, and

credit extended to importing nations or governments.

We read the opinions as distinguishing between credit which results in a concessional transaction to the importing nation and credit which does not.

Mr. Welch. The interpretation of the Attorney General's opinions aside, wouldn't you agree in attempting to determine what a statute means and whether it applies to a particular case the first

place to look for is the language of the statute itself?

Mr. HINCHMAN. Yes, sir, of course. However, the Cargo Preference Act is a complex statute and I think we would all agree that we have to move beyond that, at least with respect to some of its provisions. Certainly the first provision, which refers to the provision of commodities without compensation, has been interpreted to mean in any case in which there is any concessional element or provision of the commodity.

Mr. Welch. Would you agree, following the statute, the next source to interpret the law is the committee reports and statements of those who wrote the law, and the congressional debates?

Mr. Hinchman. I would agree that for one who approaches the question of statutory interpretation in the first instance, that is correct, and of course the Attorney General's opinion does that.

Mr. Welch. Do you agree that the Agriculture Department's general counsel in his memorandum and Secretary Lyng's letter to the chairman failed to discuss either one of these sources in rendering the opinion on the application of cargo preference?

Mr. HINCHMAN. It is true that the general counsel's opinion principally discusses the opinions of the Justice Department, which in turn are an analysis of that history and the language of the stat-

ute.

Mr. Welch. Do you agree that the Attorney General's opinions upon which the general counsel relies addresses the situations

where credit was extended to private domestic exporters rather

than directly to a foreign nation.

Mr. HINCHMAN. The specific fact situations that were before the Justice Department in the 1963 and 1965 opinions did involve that kind of situation, yes, sir.

Mr. Welch. But do you or do you not consider this a significant distinction from the present case?

Mr. HINCHMAN. It is obviously a factual difference. Whether it is the distinction upon which a different result turns is what divides

Mr. Welch. If you don't consider the distinction important, then how do you explain the 1957 Attorney General opinion where the conclusion that cargo preference doesn't apply rests very heavily on the fact that credit was not extended to a foreign nation.

Mr. HINCHMAN. I think the subsequent Justice Department opinions explain the evolution of the Justice Department's interpreta-

tion of the statute beyond that position.

Mr. Welch. Well, I won't belabor the legal point because obviously it is a question of legal interpretation but your general counsel is reading the sum of all the Attorney General's statements in one way and I think the committee is reading it perhaps in a different way.

Mr. HINCHMAN. Yes, sir. And I wish to reiterate what I said at the beginning, it is an honest difference. We do not mean to suggest that the question is beyond all doubt. It is a difficult issue.

Mr. Welch. Lawyers do disagree occasionally.

Mr. Hinchman. Yes, sir.

Mr. Welch. Mr. Smith, we note that the contract contains a special term which states that CCC will not export any butter until July 1982 without prior approval of the New Zealand Dairy Board. What was the reason for including this term, which gives the board somewhat of a veto power over CCC butter sales for approximately

a year.

Mr. Smith. Well, the 100,000 metric-ton sale was the largest sale in history, about 18 to 15 percent of the world butter traded in any 1 year. I think it would have been very foolish on the part of New Zealand had they agreed to purchase this butter which they did without a market for it; in other words, they are going to have to sell it during the course of the year and we turn around and start competing for the same markets with them with more surplus

The only way in the world they were going to take on that responsibility of moving that quantity of butter in the world markets was to be assured we wouldn't be competing with them-turning

right around and competing with them.

I might add that I am kind of curious about the fact that was stated, I guess some of our dairy industry is concerned about this. I might add there has been no butter exported from the United States 10 years prior to this. This was the first sale made out of Government stocks for a 10-year period. It is kind of hard for me to understand why we consider this a problem at this point.

Mr. Welch. So New Zealand felt like it was important to insert this provision in the contract to prevent the disruption of their

normal export butter markets?

Mr. Smith. Not only was it important, it would have been rather foolish on their part had they committed to buy this quantity of butter, which they are going to have to market in the next 12 months, and we turn around and compete for the same market. You have to understand that to accommodate this quantity of butter into the world market without seriously disrupting prices is going to take some very careful marketing.

going to take some very careful marketing.

Mr. Welch. In Mr. Lyng's September 8 letter, and in your prepared testimony earlier today, the statement is made that the sale was not to assist the economy of New Zealand. Isn't the provision that allows New Zealand to veto our butter sales for a year, doesn't that in effect protect the New Zealand butter economy? Is that a protection for a country that relies very heavily on a dairy econo-

my and dairy exports?

Mr. Smith. That is not—the analogy would be like hitting a guy with a sledge hammer and telling him afterwards it really didn't hurt. Of course it is protecting him. If we sold 100,000 tons of butter on the world market, it would have a major effect on world prices. It would seriously hurt the New Zealand economy; that was the whole purpose for going through this exercise. Obviously New Zealand is going to market this in a more orderly fashion and help protect the world market.

Mr. Welch. The staff is a little concerned that if we are worried about the impact on New Zealand's economy, arguably that is a

concessionary feature of the sale.

Mr. Smrth. Well, in addition to the concern of the impact on New Zealand's market, our big concern is what this would do to our trade policy image around the world. It is kind of hard for us to be taking a very hard stance on the use of export subsidy in the sale of agricultural commodities, and then turn around and make a sale of this magnitude without taking into account the world price and what effect this would have on other exporters.

Mr. Welch. Certainly that is understandable. But if you concede this provision is to protect the New Zealand economy, it is arguable that is a concessional sale in that respect and the cargo preference

law would apply.

Mr. Smith. It was taken to protect the world butter market, that involves a lot of countries other than New Zealand plus our own

trade policy interests.

Mr. Oberstar. One of the arguments made by the Department of Agriculture in negotiating with New Zealand and the New Zealand Dairy Board is that they are experienced in the international market. They certainly proved it. And as for concern about the world market, clearly that provision which gives the New Zealand Dairy Board in effect a veto, which they have three times exercised since over U.S. sales, was in their own interest, clearly to protect their own interests.

And I applaud them, I think they are very smart negotiators. They got themselves a sharp deal, And to that extent I think it cannot be argued that the sale was anything other than concessionary, there is no other way to characterize it, and in their own interest; I think quite clearly so.

They would have been—they would have been and should have been faulted if they did not have such a provision in there. It was

clearly to protect New Zealand from having any adverse effect on sales of their own butter. And that was stated to me in letters from the New Zealand Embassy.

So to that extent, clearly this is a concessionary sale. Mr. Sunia. Mr. Chairman?

The CHAIRMAN. Mr. Sunia.

Mr. Sunia. I wonder if the Department of Agriculture expects a repetition of this in the future, in a situation where our stock once more exceeds normal patterns; do we expect to go into another round of negotiations with New Zealand and have them sort of act like our world salesman?

Mr. Smith. We certainly expect, I do not know if expect is the word, I would say it is a certainty that our surplus of dairy products is going to be sizable, not only in the case of butter, but also in the case of cheese and nonfat dry milk. Certainly any time we make subsidized sales into the world market we are going to have to take into consideration the effect this would have on world markets and we are committed, as a responsible trading country, not to disrupt unduly the world market to subsidize exports. We have to find ways to accommodate that policy.

I might add, too, that the problem of selling subsidized products in the world market basically when our own consumers can't get it at that price is another problem we have to face. I think it is going to be very difficult to maintain a program where in essence you are using Government funds to subsidize the production of a product in order to sell it cheaper to the Soviet Union than our own consumers can get it. I think that is a problem we are going to have to

face in that program.

Mr. Sunia. My particular interest here is whether the fact that we have gone through this exercise of looking into this particular matter would have a bearing on future activities in this particular

Mr. Smith. If you are talking to cargo preference, I think we have been very sensitized to the issue. We will certainly do our best.

Mr. Sunia. Thank you.

Mr. Smith. There is no question, and I hope we have been able to convey this, no conviction on our part against cargo preference or any desire in any way to undercut cargo preference. We approach the problem from protection of the CCC assets. We have made a decision and we believe it is supported by legal opinion that cargo preference does not apply. So in order to protect the assets of the corporation and get the best deal we can, we don't apply it.

Now if we are legally wrong, I can assure you we will review the statutes on this, we will certainly comply with cargo preference. A policy decision can be made to use U.S. shipping without cargo preference applying if that is the desire also. We will certainly be

looking into it.

But I do not want to leave the impression either that if we are making commercial sales and cargo preference doesn't apply, we automatically are going to apply it. I think we are going to have to discuss this in some detail within the administration. But we certainly are committed to it.

As the Admiral indicated, our Under Secretary has promised him that there will be a dialog on this issue henceforth.

The CHAIRMAN. Mr. Smith, one or two questions.

Appendix A to the staff memorandum is a chart showing past and present butter shipments under the contract with the New Zealand Dairy Board. Can you confirm this chart?

If there are discrepancies between shipments shown on the chart

and those you have made, would you please note them?

Mr. SMITH. Could we do that for the record, Mr. Chairman?

The CHAIRMAN. That would be fine.

Your statement covers transportation costs to Europe only. What were your estimated transportation costs to New Zealand in negotiating the contract? And have these estimates proven accurate?

Mr. Smith. Could we also provide that for the record, Mr. Chair-

man?

The CHAIRMAN. Without objection.

In that connection, I also have several questions on the recent sales to Poland that I would like to submit in writing. Would you be prepared to respond to those questions for the record?

Mr. Smith. Yes.

The CHAIRMAN. Would you be willing, in light of the testimony given here today, to reexamine your position on the application of cargo preference to this butter sale and other similar sales that have occurred in the past or may come up in the future? And would you be kind enough to report back to the committee on the results of your reassessment?

Mr. Smith. We will certainly reassess it. We will certainly look at the legal determinations and we will report to the committee

what our findings are.

The CHAIRMAN. Thank you, Mr. Smith.

I also ask that you notify this committee of all future shipments of butter under this contract and please let us know the shipment date, the point from where shipped, destination, amount of butter involved, carrier and transportation charges; that would give us some indication of where we are—how successfully we are enforcing Public Law 664.

Mr. Smith. We will do that.

The Chairman. Mr. Smith, thank you very much. I feel like we are not that far apart. I think we can all live together here somehow or another. I hope this does give you an insight into how this committee feels.

Granted, very few of them are here today, but I can assure you the sentiments expressed by the Chair as well as the two or three members here are most universal with this committee. We do have a moral obligation to help build up our American merchant marine.

As I recall, the then candidate for President, Ronald Reagan, on six or seven occasions throughout the United States emphatically and candidly said we have to build up our American merchant marine, it is a disgrace, and so forth. I am not quoting him verbatim. Nevertheless, you get the idea. So, let's hold up the President's hand and help him meet this objective.

Mr. Smith. Thank you, Mr. Chairman.

The Chairman. Our next witnesses are retired Adm. James L. Holloway III, president, Council of American-Flag Ship Operators. Accompanying him is Mr. William F. Toohey, senior vice president, Farrell Lines. Inc.

You are not bound by the order in which you are introduced.

You may proceed according to your own script.

STATEMENTS OF ADM. JAMES L. HOLLOWAY III, U.S. NAVY (RE-TIRED), PRESIDENT, COUNCIL OF AMERICAN-FLAG SHIP OPER-ATORS, ACCOMPANIED BY WILLIAM F. TOOHEY, SENIOR VICE PRESIDENT, FARRELL LINES, INC., AND ALBERT E. MAY, EX-ECUTIVE VICE PRESIDENT AND GENERAL COUNSEL

## STATEMENT OF ADMIRAL HOLLOWAY

Admiral Holloway. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I am Adm. James L. Holloway III. With me is Mr. Albert E. May, general counsel for CASO, on my left, and Mr. William F. Toohey, senior vice president of Farrell Lines on my right.

Mr. Chairman, I do have a brief statement which I would like to

present.

The CHAIRMAN. You may proceed.

Admiral Holloway. Thank you, Mr. Chairman. The Council of American-Flag Ship Operators [CASO] is a national association which represents the majority of the U.S.-flag liner companies serving the foreign commerce of the United States. Our member companies own and operate a modern and diversified fleet of break bulk, barge carrying, container, and RO/RO vessels. All of these ships are available under various programs for use by the United States during times of military emergency.

I am appearing here today on behalf of CASO to underscore our members 'unanimous support of a more detailed statement to be presented by Mr. Toohey. Farrell Lines is the only U.S.-flag liner company which serves New Zealand and thus it is the company most directly injured by the Department of Agriculture's decision that cargo preference laws do not apply to this sale of surplus

butter to New Zealand and others.

Unfortunately, this is not an isolated instance affecting a single steamship company. The failure to apply our cargo preference statutes is a matter of broad and serious concern to all U.S.-flag liner

The U.S. Government is the world's largest shipper. Increased cargo is the single most vital need of our merchant marine. The national policy of the United States calls for the development of a merchant fleet capable of carrying a substantial portion, defined by the Congress as 50 percent, of our cargo. In recognition of these three facts, the Congress passed Public Law 83-664 27 years ago to require that at least half of U.S. Government-supported cargoes move on U.S.-flag ships.

In view of our clear national policy regarding the need of a Merchant Marine for economic and defense purposes, one would think that senior officials of our Government would lean over backwards to move as much of the Government's own cargo on our fleet as possible. When they use foreign-flag ships to carry Government

cargo, they not only deny badly needed revenue to U.S. companies

but, even worse, strengthen their foreign competitors.

We find the efforts by American Government officials to avoid the cargo preference statutes particularly ironic because foreign maritime nations move virtually 100 percent of their government cargo on their own flag ships when they are available. This is accomplished not always by law but also through patriotism and recognition of self-interest. Think for a moment and try to imagine a senior official of the Japanese Government deliberately routing cargo on anything other than a Japanese ship.

We commend you, Mr. Chairman, and the members of your committee for holding this oversight hearing. We completely support your position that cargo preference should have been applied to this and similar shipments and we trust that you will receive complete cooperation from the Reagan administration in insuring that in the future at least 50 percent of all Government-supported cargo

moves on U.S.-flag ships.

Thank you, Mr. Chairman.

The Chairman. The Chair recognizes Mr. Toohey at this time.

## STATEMENT OF WILLIAM F. TOOHEY

Mr. Toohey. Thank you, Mr. Chairman.

My name is William F. Toohey. I am senior vice president and a director of Farrell Lines, and my direct responsibility is the Australian/New Zealand Trade (Trade Route 16). I have been in charge of this service since 1968.

I have a short statement which I shall read into the record.

The CHAIRMAN. The gentleman is recognized.

Mr. Toohey. Farrell Lines is a privately held company which has been operating ships since 1925, starting in the South African trade. In 1947 Farrell expanded to West Africa and, in 1965, purchased Trade Route 16, Australia-New Zealand from U.S. Lines.

Farrell originally operated the six C-2 type vessels acquired with the Australia/New Zealand route. These vessels had a refrigerated capacity of 500 tons. We later replaced these slow small vessels with C-4 type ships still with the same limited reefer capacity. In 1969 we added two *Racer* class vessels purchased from U.S. Lines which had a reefer capacity of 2,500 tons each. We continued to operate with these two Racers plus two C-4's until 1972 when we took delivery of our new container vessels for the C-6 class.

The C-6 vessels had a capacity of 1,070 20-foot equivalent units or TEU's, of which 370 were refrigerated. We continued to operate C-6's until 1977 when we jumboized two of them into C-8's and built two new C-8 vessels. These C-8's have a capacity of 1,708 TEU's, of which some 828 are refrigerated. Therefore, this presently gives us the ability of lifting some 13,500 tons of refrigerated cargo on each voyage, for example, for about 20 voyages per year. These vessels have the largest refrigerated capacity of any vessels under the U.S. flag and are among the largest in the world.

We have invested in these four vessels about \$150 million net of construction differential subsidy and in the support equipment of reefer containers, dry, flats, open tops, tank containers, et cetera,

another \$23 million.

In the 1970's the meat trade from Australia and New Zealand to the United States accounted for about double the southbound revenue. In other words, the total revenue on the cargo imported from Australia and New Zealand to the United States amounted to twice the revenue for cargo shipped from the United States to Australia/New Zealand. More recently the revenues have balanced but the reefer containers cause considerable imbalance in the trade.

Australia/New Zealand is probably the only trade in the world where the 20-foot container predominates. This causes great difficulty because shippers in the United States and their truckers do

not like the 20-foot box as it increases their inland costs.

There is virtually no reefer cargo from the United States to Australia and New Zealand, and therefore the problem of loading general cargo into reefers or carrying reefers southbound empty is expensive for the line.

Neither Australia nor New Zealand are recipients of U.S. AID cargo and, with the exception of Export-Import Bank, there is very little Government-generated cargo available to the lines in the

trade. It is basically a commercial market.

A sale of surplus cargo by the U.S. Department of Agriculture provides an infrequent opportunity to utilize our equipment southbound. Since this butter sale is the first of its kind, we anticipated

it would have been preference cargo.

During the negotiation between USDA and the New Zealand Dairy Board, there was no opportunity for the lines in the trade to discuss the shipments or the rates. Repeated attempts to contact USDA officials were unsuccessful. It was not until the transaction was signed that we became aware of the fact that the USDA was bypassing cargo preference.

We could see no reason why the butter, purchased with subsidy funds, stored for over 3 years at taxpayers' expense, sold considerably under the purchase price and the entire transaction being financed by U.S. taxpayers should not be shipped exclusively on

U.S.-flag vessels.

We have the vessels necessary, the equipment available, and the schedule suitable to accomplish the entire movement. The cost of U.S.-flag service is identical to that of foreign flag on this route. Yet the USDA insisted that U.S.-flag vessels deserved no special treatment, and therefore the cargo should be shared with other flags, and there was no requirement to use any U.S.-flag vessel, if New Zealand Dairy Board so desired.

I do not want to give any impression that we are against such a sale. It is probably unique in world trade that a nation such as the United States has the good sense and good heart not to destroy the world market of another country by dumping surplus commodities

such as this butter.

The major portion of this butter will move to New Zealand for processing into butter oil. Some 40 percent will probably go to Europe for processing. There is plenty of U.S.-flag service to Europe at exactly the rates requested by the New Zealand Dairy Board, to cater for whatever tonnage they choose to move to that area.

We trust that the committee will decide that Cargo Preference Laws prevail in this and similar transactions in the future. Every country in the world supports their merchant marine. It is inconceivable that foreign government entities, in the same position as the U.S. Department of Agriculture, would ever neglect their own flag ships when the rates, services and equipment were adequate, or as in this instance, superior.

Thank you for your attention.

Admiral Holloway. Mr. Chairman, that concludes our prepared

statements. We are ready to answer your questions.

The Chairman. Mr. Toohey, I couldn't agree with you more in your last paragraph, that it seems like a breakdown of communications within our own Government. But that is water under the bridge. Hopefully this hearing, as well as other efforts by the committee, will cause reassessment and reconsideration.

I think you touched on this, if I am not mistaken, but for the record I would like to make it clear. Would your rates for transporting this butter to New Zealand be any different from those rates offered by the other carriers who have been and might con-

tinue to be involved?

Mr. Toohey. These were all members of the same conference. Rates were negotiated by New Zealand Dairy Board with the conference and the resulting rates are identical.

The CHAIRMAN. Are identical?

Mr. Toohev. Yes. I might add also that I talked with the people in the North Europe conference and they told me that they negotiated with the New Zealand Dairy Board and the New Zealand Dairy Board required a rate of \$85 a ton for Europe and the North Continental Rate Conference, which covers Amsterdam, Antwerp, Rotterdam, Hamburg, Bremen, and Bremerhaven, they put in a rate for butter to move in 35,840 pounds per trailer. It was approved on October 6, house-to-house rate of \$81 a ton, plus \$4 handling charge, which equated exactly to the rate that the New Zealand Dairy Board asked. These are all lines in that trade.

The CHAIRMAN. Just for the record, since this is applying to one transaction this afternoon, could you supply the New Zealand ship-

ping rates for the record?

Mr. Toohey. They are quite complicated. Basically, the rate, I think, is \$95 a ton.

The Chairman. That is the conference rate?

Mr. Toohey. Conference rate, but it is on a free out basis, which means that the New Zealand-Dairy Board negotiated with the Auckland Harbor Board for a special rate for discharging it and—it is quite complicated. I will supply it. It comes to two pages in the conference tariff.

The Chairman. Two pages is nothing in our record, sir. Send it

over. We would like to have it.

Mr. Toohey. I will be glad to supply the two extra pages.

[The information follows:]

# FARRELL LINES

ONE WHITEHALL STREET, NEW YORK, N.Y. 10004

November 30, 1981

0F0 \$ [88]

Hon. Walter B. Jones
Chairman, Committee on Merchant
Narine and Fisheries
Room 1334, Longworth House Office Building
Washington, D.C. 20515

UMMITTEE THE SHEAR AND MARINE

Dear Mr. Jones:

Thank you for your letter dated November 16, 1981.

We have supplied to your Committee copies of pages 393 and 394 which cover the rates on butter from the United States to New Zealand. There are four rates depending upon the method of shipment chosen by the New Zealand Dairy Board. The one which has been used so far, and presumably will be used in the future, is the second one on page 393.

This rate is \$1,800 per 20 foot container which equates to about \$106 per ton of butter. Under this rate, the New Zealand Dairy Board is obligated to pack the butter into the container at their expense and deliver it to the loading pier. All costs are for account of cargo until they turn the cargo over to the vessel. They must pick up the container in New Zealand at the terminal and return it within 15 days or they must pay a detention charge of \$5 per container per day for each day in excess of 15.

These rates include all bunker and currency surcharges.

The other three rates listed on the two pages are variations of the one mentioned above depending upon the amount of service required by the New Zealand Dairy Board.

I trust this explanation of the rates is the information you require.

Sincerely,

William F. Toohey

Senior Vice President

WFT/mr



202-828-1043 Principle U.S.A. Orie./Rev. U.S. Atlantic & Gulf/Australia -Page 12th Rev. 393 New Zealand Conference Page Freight Tariff No. 4 F.M.C. No. 13 11th Rev. 393 FROM: Atlantic and Gulf Ports of the United 10: Main Ports in Australia and New Zealand as Effective Date listed in Rule 21 A and B, and Ports in the Society lelands. See Rule 21 for application States of America. "\*October 14, 1981 to other ports. Correction PROJECT RATES TO NEW ZEALAND . 🛬 . CONTRACT NON-CONTRACT MATE . RATE A NEWSTON, New Zealand Batching Plant Project - Batching Plant and Parts. The Note 1: Rates are subject to Tariff Rule 25 - on under deck at certiers' op-·W/W ÷÷\$227.00 \$193,00 --÷. project" and show the following clause: "Not commercial cargo, a not for re-sale. Utilimately either to be consumed during or incomporated into construction, perection or expansion of the project, or removed from New Zealand or disposed of locally for salvage value only."

Temporary Rate Expires November 30, 1981

Butter, to Auckland, New Zealand (See Notes 1 & 2)

When shipped in carriers 20' containers moving on a pier to thouse basis only borth terms to stack Auckland, Rate includes surcharges in effect at time of shipment. Carpo to he received at loading terminal dennical ---Ŧ Ξ e of shipment. Cargo to be received at loading terminal/terminal depot as defined in Tariff Rule 31A not more than four (4) working days prior to loading. All costs to this point for account of cargo. Vessel's responsibility ends when container is placed in container stack at discharge terminal. If container is not returned within fifteen (15) working days, detention charges will accrue at a rate of \$5.00 per 20' container per day or fraction thereof. Not Subject to Rule 31(L)3A. \$2,350.00 When shipped in carriers 20' containers moving on a house to house basis only - berth terms to stack Auckland. Rate includes surcharges in effect at time of shipment. Containers to be packed by shipper at cold store within the urban area of the respective loading port and delivered to the carrier not more than four (4) working days prior to loading. Pick up of empty container, packing and transportation to Lines' terminal for account of cargo. If container is not returned within fifteen (15) working days, detention charges will accrue at a rate of \$5.00 per 20' container per day or fraction thereof. Not Subject to Rule 31(L)3A. per 20' Containe \$1,800,00 Note 1: Not subject to the Allowance Provisions of Tariff Rule 31(C) Note 1 and the utilization provisions of Rule 31(C)1A. Note 2: The above rate clso applies for vessels calling New Plymouth -Direct Call only. Not subject to Rule 21 - Direct Calls. Temporary Rate Expires December 31, 1981. \*\*Per Talegraphic Filing of October 14, 1981

For explanation of references see Page 3.

Print to U.S.A.

# U.S. Atlantic & Gulf/Australia -New Zealand Conference

#### Freight Tariff No. 4

F.M.C. No. 13

Orig./Rev. 3rd Rev. 394 2nd Rev. Effective Date

FROM: Atlantic and Gulf Ports of the United States of America."

TO: Main Ports in Australia and New Zealand as ilated in Rule 21 A and 8, and Ports in the Society Islands. See Rule 21 1tr application to other ports.

"October 8, 1981

#### PROJECT RATES TO NEW ZEALAND

•

Butter, to Auckland, New Zesland - See Notes 1, 2, 3 & 4

on shipped in certiers 20' containers moving on a pier to free out Auckland when snipped in earners 20' containers moving on a pier to tree out Auchano basis only. Rate includes surcharges in effect at time of shipment. Cargo to be received at loading terminal/terminal depot as defined in Tariff Rule 31A not more received at loading terminate internal pools as derived in sent year at Amor more than eight (8) calendar days prior to loading. All costs to this point for account of cargo. Vessel's responsibility ends when container is Bitted from vessel at discharge terminal. If container is not returned within filtren (15) workding days, detention charges will accrue at a rate of \$5.00 per 20' container per day or fraction thereof. Not subject to Rule 31L3A.

When shipped in carriers 20' containers mov ing on a house to free out Auckland When shipped in carriers 20' containers moving on a house to free out Auctiond basis. Rate includes surcharge in effect at time of shipment. Containers to be peciad by shipper at cold store within the urban area at the respective loading port and delivered to the carrier not more than eight (8) calendar days prior to loading. Pick up of empty container, packing and transportation to Line' terminal for account of cargo. If container is not returned within fifteen (15) working days, detention charges will accrue at a rate of \$5.00 per 20' container per day or fraction thereof. Not subject to Rule 3113A.

NOTE 1: Not subject to the Alloyanges Provisions of Tariff Rule 31(C) Note 1 and the utilization provisions of Rule 31(C)14.

and the utilization provisions of Rule 31(C)1A.

NOTE 2: The above rate also applies for vessels calling New Plymouth - direct call only. Not subject to Rule 21 - Direct Calls.

NOTE 3: Carriers to control vessel echedule and working programs.

NOTE 4: Cargo to be delivered to the carrier at a temperature not exceeding 10 degrees Farenheit. (FQ)

Temporary Rate Expires December 31, 1981

NON-CONTRACT RATE

umo Sum Per 20' Container

\$2,200.00 

Lumo Sum Per 20' Container

\$1,650,00 

3.

""Per Telegraphic Filing of October 8, 1981

For explanation of references see Page 3.

The CHAIRMAN. Mr. Sunia?

Mr. Sunia. Thank you. I have no questions.

The Chairman. Mr. Oberstar?

Mr. OBERSTAR. Thank you.

I can only say that I regret that the Department's witness did not remain for your statement.

Mr. Toohey. So do I.

Mr. Oberstar. They sure hightailed it out of here in quick fashion. In the course of my discussion with Mr. Smith, he said, and I will paraphrase it, since I don't have the precise wording, that the Department did not subject this butter sale to the Cargo Preference Law because U.S.-flag transportation would have increased the cost of the sale and that New Zealand would have asked for a lower price because U.S.-flag rates were higher than other rates.

Now, if this sale moved at conference rates, how could there

have been a higher rate for U.S. flag?

Mr. Toohey. That simply isn't true, you know.

Mr. OBERSTAR. Did he make the statement out of ignorance of the rates or a deliberate—I mean, were they provided with the information? Was there a deliberate effort to sidestep the issue?

Mr. Toohey. I can't speak for Mr. Smith, but you do know that the rate that they used as a basis for negotiation was \$180 a ton, and we are carrying it at about \$95, plus incidentals.

Mr. OBERSTAR. Where did they get \$180 a ton?

Mr. Toohey. It came out of the air. It would have been a very nice rate. We would love to have had it.

Mr. OBERSTAR. It came out of the same place that the decision came to sell the butter to New Zealand instead of the Russians. What accounts for the difference in the rates that you cited between the rate to Rotterdam and that to the free on board rate to New Zealand of \$85 a ton for the Rotterdam trade and \$95 for the New Zealand trade?

Mr. Toohey. Well, it is difficult. You can't compare the two trades. One is a relatively short distance. New Zealand, you are talking 11,000 or 12,000 miles away. It is just a very short distance to North Europe. You can do that in 5 or 6 days. It is about 20 days to New Zealand.

Mr. Oberstar. So there isn't anything special about the difference in the two rates?

Mr. Toohey. No.

Mr. OBERSTAR. It is the nature of the trade: distance involved, time you have to steam.

Mr. Toohey. Rates are very high—ocean freight rates are very difficult to come by. You get as much as you possibly can get.

Mr. OBERSTAR. The rate that you cited of \$95 a ton, is that the

rate at which the butter is moving now?

Mr. Toohey. That is the rate, but again, it is on a free-out basis. There are certain things about delivery. Most of it comes out of Philadelphia. Delivery, there are certain times involved where we can accumulate the refrigerated containers there. There were concessions made on the part of the New Zealanders in bringing it to Philadelphia because that happens to be the place where the majority of the meat from Australia and New Zealand comes in,

which means our reefers were already there. They tried to be as helpful as possible in order to keep the cost at a bare minimum.

Mr. OBERSTAR. Who is moving this cargo now, what flag vessels? Mr. Toohey. Ours, the German flag and a combination of British

and Australian. No New Zealand flags are in this trade.

Mr. Toohey. The British line is called Pace Line. They have three British ships and one Australian ship.

Mr. OBERSTAR. How does the meat and whatever other cargo New Zealand exports come to this country, what flag?

Mr. Toohey. They are on the same three lines.

Mr. OBERSTAR. I see. So there would have been cargo for Farrell. If it had 50 percent, there would have been cargo to bring back to

this country; it wouldn't be steaming back empty.

Mr. Toohey. No. We don't steam back empty. That is what we like the butter for, that is one of the reasons we even quoted such a low rate, is to position containers for meat, which is a very good paying cargo.

Mr. OBERSTAR. So it would have enhanced an already active

trade; is that right?

Mr. Toohey. An already active trade, very active.

Mr. OBERSTAR. Did anybody from the Maritime Administration call Farrell Lines, call up and say, "Hey, we got a thing going here. Can you quote a rate for us?"

Mr. Toohey. On the butter?

Mr. Oberstar. Yes.

Mr. Toohey. No. We knew about the butter many, many months ago.

Mr. OBERSTAR. You called them?

Mr. Toohey. We called the Department of Agriculture and they refused to talk to us; absolutely refused. They wouldn't answer, wouldn't return our calls, would do nothing about it.

Mr. OBERSTAR. Now, I asked Mr. Smith to provide for the record information to substantiate his position that U.S.-flag rates would have cost them more. When we get that, we will share that with you and would like to have your comment on it.

Mr. Toohey. I would love to see it.

Mr. OBERSTAR. I would like to know out of what cloth their statements were spun. We have some information that says that rumors—this is from a letter, and what is important is the statement that says:

Rumors in the trade suggest that the New Zealand Dairy Board will be using a shipping line, owned by Australian-New Zealand interests, to move a portion of the butter purchased to New Zealand for processing. Since this shipping line is engaged in bringing Oceanic meat to the United States and its ships are returning virtually empty, it is alleged that they will be willing or have already agreed to take the butter to New Zealand for \$4 to \$60 per ton, rather than the mutually estimated \$180 per ton rate we used in negotiating the contract. As I mentioned over the telephone, it would be highly embarrassing to us if a discrepancy of that magnitude actually did materialize. We would no doubt be obliged to try to renegotiate the selling price upward.

Now here it is, from Bryant H. Wadsworth, Assistant to the Director, Dairy, Livestock and Poultry Division, U.S. Department of Agriculture, in a letter to Mr. Bruce Stuart, New Zealand Milk Products, Inc., at Rosemont, Illinois. Very interesting.

Mr. Toohey. There is no truth to that. There is no such line. The meat is controlled by the New Zealand Meat Board and they designate the carrier, and there are only three carriers so designated. And those are the three that we referred to, the German, British-Anatolica and Fermall Lines the American line.

Australian, and Farrell Lines, the American line.

Now, in Australia it is the same situation. There were four meat lines designated by the Australian Meat and Livestock Corp. This year they have added two additional ones, but none of them is exclusively on the carriage of meat and none of them would be in a position to go back empty. There is just no one-way trade anymore; it has to be two ways.

Mr. Oberstar. That is very revealing, and I almost wish we had had your testimony first. We could have confronted the Department with that information. But what is significant here is that somehow the Department of Agriculture had a \$180 a ton rate and then they alleged a substantially lower rate to a fictitious, nonexis-

tent shipping line.

Mr. Toohey. I must say if we had known about that \$180 rate,

we would have gotten a lot higher rate out of our negotiations.

Mr. Oberstar. What puzzles me is how could the Department have come to this conclusion that moving the cargo by an American line could result to them in a higher rate than New Zealand

would be willing to accept?

Mr. Toohey. That goes back to times when, on full chartered ships of grain where there is a requirement for U.S.-flag, and there are a very limited number of U.S.-flag vessels able to compete for that cargo. They are able to quote considerably higher rates than the foreign flag but in liner trades, almost inevitably, invariably, it is identical, but really just from listening to the testimony that preceded us here, it seems to me that the U.S. Department of Agriculture goes out of their way to find loopholes not to use U.S.-flag vessels instead of trying to find loopholes in which they can use U.S.-flag vessels.

Mr. OBERSTAR. They did on this. They got outfoxed, outmaneuvered by the New Zealand Dairy Board and looked pretty silly

afterwards.

Mr. Toohey. I am sure the New Zealanders have no objection to using 50 percent U.S.-flag vessels.

Mr. OBERSTAR. Is Farrell Lines involved in the movement of

other CCC sales?

Mr. Toohey. Yes, to Africa, we move a lot of CCC sales to Africa, and some into the Mediterranean.

Mr. OBERSTAR. Have you ever had an experience of this kind in any of those transactions?

Mr. Toohey. No.

Mr. OBERSTAR. Ever had your rates questioned by the Depart-

ment of Agriculture?

Mr. Toohey. In the old days we had a lot of trouble with cargo preference in that the rules were written that 50 percent had to go on U.S. flag and invariably they tried to get the U.S. flag to carry the cheapest part and the good cargo went to the foreign flag and fortunately, most of the new legislation has taken that into consideration and they have been able to get around that.

There is also a lot of times where companies had ships both under U.S. flag and under foreign flag, tramp companies, companies that did a lot of charter business, and they would book the cargo on a U.S. vessel and at the last minute, substitute a foreign vessel.

I am talking 15 years ago. Mr. Oberstar. In light of your experience with this sale, do you see any need for any strengthening of, clarification of the existing

Cargo Preference Act?

Mr. Toohey. Yes, I am also reluctant to hear words like fair share, how did he put it, equal access? I would like to see 50 percent minimum put in, 50 percent, that should be the minimum.

Mr. OBERSTAR. Well, that is what we thought the law said. Per-

haps they are reading it through mirrors.

No further questions, or comments, Mr. Chairman.

Well, if I might make a final statement, concluding remark.

I want to thank the chairman and the committee for holding this hearing to bring to light the facts that have emerged in the course of this hearing.

It has been most instructive and shows clearly the Department of Agriculture was outmaneuvered, outnegotiated, outfoxed in every respect, that they have acted in derogation of the Cargo Preference

Act.

There is no shred of evidence that in any way supports the contention that the sale other than concessionary, that it is any other kind of sale than one intended to be covered by the Cargo Preference Act, and I commend the Chair for demanding certain documentation, followup on this sale and future monitoring by the Department. I think that is extremely important, and we have got to let USDA and other governmental agencies know that this committee means to see that this law is going to be enforced, not by Attorney General opinions or counsel opinions but the word of the law is clear, and the Chair has made that repeatedly clear and I hope

they get the message.

Mr. Sunia. Mr. Chairman, I wish to associate myself with the remarks of my collegue, the gentleman from Minnesota, and I do think, and I would suggest that the facts of Mr. Toohey's testimony, particularly in regards to the rates and the procedure which they had to go through in order to bring to the attention of the Department of Agriculture, the fact that they were interested in carrying this cargo, and some of the other facts that were in contradiction with the facts or the statements of the Assistant Secretary, I wish that those facts would be brought to the attention of the Department of Agriculture, not so much as to continue to create a debate but so that USDA would know that we in fact know otherwise, and that perhaps there was something other than an honest difference of opinion of the legal minds.

Thank you very much. The CHAIRMAN. Thank you, sir.

That concludes our list of witnesses. In closing, let me say on behalf of the Merchant Marine and Fisheries Committee, I thank all of the witnesses who have taken the time to appear today and to present testimony on this important question affecting our merchant marine.

I would particularly like to commend Admiral Shear, not only for his specific efforts to have cargo preference applied to the New Zealand butter sale and to the Polish sales that have been mentioned, but also for his strong and effective leadership as Maritime Administrator in the short time since he assumed his duties.

As chairman of this committee, which has a duty to oversee the many important programs that he and his staff at the Maritime Administration must carry out, I am delighted that he has taken quick and positive action to see that the cargo preference laws will be properly executed and that cooperation in maritime matters, rather than antagonism, will be the touchstone of his tenure as Maritime Administrator. I look forward to working with him in the future.

When I was home recuperating in preparation for this hearing, I was contacted by the Administrator on one or two occasions by

long distance, and we compared our notes and so on.

With respect to the testimony and colloquy that has taken place here today, it appears that the United States has in fact extended credit to the New Zealand Dairy Board in connection with the sale of surplus butter, and that the extention of credit brings the transaction within the terms of the Cargo Preference Act. In the future, I trust that the various Federal agencies affected by cargo preference will understand that it does not apply only where a sale is concessional. The statute is not so narrowly drawn. Other situations, such as the one addressed at this hearing, also come within its purview.

Furthermore, from the testimony given today it appears that the butter sale to New Zealand also qualifies as a concessional sale. In this situation, there is clearly a double reason that cargo prefer-

ence should be applied.

The committee appreciates the fact that some of the butter contracted to move, has thus far gone, or will go, on U.S.-flag ships. However, we must insist that the USDA acknowledge that the cargo preference statute clearly applies in this case. We expect that the Department will promptly take whatever steps are necessary to bring itself into full compliance with the law.

Our goal today has been to hear the positions of the different groups involved and to clear up any ambiguity or confusion that may have existed with respect to cargo preference. I believe that we have achieved this goal, and I am confident that we will have the continued support of the Maritime Administration, the Department of Agriculture, the other Federal agencies, and industry, as we strive to assure our Nation of a vigorous merchant marine fleet.

In listening to the testimony offered today and in reviewing the committee staff's work product, I think we are able to clarify the cargo preference laws for those who are responsible for carrying them out. Congress' intent has been and is still that U.S. vessels will be employed in the carriage of cargo, to the extent required by statute, whenever: First, the United States procures for its own account; second, the United States furnishes commodities or goods to another nation without provision for reimbursement, or adequate compensation; third, the United States advances funds or credits to another nation; or fourth, the United States guarantees the con-

vertibility of foreign currencies in connection with the furnishing

of commodities, goods, and so on.

A critical conclusion is that if any one of these conditions is found in a transaction the imposition of the cargo preference provision of Public Law 83-664 is required.

I would like to thank the staff, who have worked very hard. They have presented a fine case here today, and I want to commend the

staff and thank you for the work you have done.

Again, I wish to thank all the witnesses here today. I do hope, and we ought to be encouraged, that we have established some rapport that lets the downtown boys know that this committee means business, and we intend to see that the Cargo Preference Act is complied with. With that, the Chair declares the meeting adjourned.

[The following was submitted for the record:]

#### NINETY-SEVENTH CONURELS

WALTER B. JOHN DAME PAGE, KY, GLERN M. ANGEROOM, TALLEY, GLARY M. ANGEROOM, TALLEY, ANGER, GLARY, ANGER, AN

WALTER S, JONES, N.C., CHITHMAN
N.Y.
600E BRYDER, KY.
600

HOUSE IN WHICH HOUSE IN CHRISCO

# U.S. Pouse of Representatives Committee on Accepant Marine and Lisheries Room 1334, Longworth Boase Office Valleing Mashington, O.C. 20515

November 16, 1981

November 16, 1981

Mr. Richard A. Smith Administrator Foreign Agricultural Service South Building Department of Agriculture Washington, D.C. 20250

Dear Mr. Smith:

In your testimony before the House Merchant Marine and Fisheries Committee on November 9, 1981, concerning the recent sale of surplus butter to New Zealand, you indicated your willingness to answer additional questions and to provide further information for the record. The questions and requests for information are set forth below.

Pirst, the Committee seeks a general understanding of the recent sales or donations of surplus agricultural commodities to Poland. Your cooperation in supplying any information that will assist the Committee in this endeavor, in addition to answering the following specific questions, will be appreciated.

- 1. How many contracts or other agreements to sell or donate surplus commodities have been concluded? Please supply the Committee with a copy of each contract or agreement.
- 2. Are any other contracts or agreements being negotiated or are any other future sales or donations-contemplated?
- 3. With respect to each contract or agreement: under what authority, statutory or otherwise, was it concluded?
- 4. What was the reason for it? For example, was it for purely humanitarian purposes; was it to reduce U.S. stocks, or for some other reason?
  - 5. When was the contract or agreement executed?
  - 6. Who are the parties?

- 7. If individuals or groups other than the parties were involved in the conception, negotiation or execution of the transaction, who are they and what role did they play?
  - 8. What commodities are involved?
  - 9. What quantities of these commodities?
- 10. These quantities represent what percentage of total U.S. stocks?
- 11. How are these commodities generally stored and for how long?
  - 12. What is the sales price?
- 13. What were the world, private domestic, and federal support prices for each commodity on the contract date?
- 14. What are the other terms of the contract or agreement? For example, will payment be in dollars; will payment be deferred; will interest be charged; if so, at what rate; if not, why not; what are any other special terms or conditions?
- 15. What agencies, and which individuals, were responsible for negotiating the transaction?
- 16. Who signed the contract or agreement, and on behalf of what organization or group?
- 17. Who made the initial overtures about the possibility for the transaction--how did the idea originate?
- 18. The commodities have been or will be shipped by what method?  $\label{eq:commodities}$
- 19. Which carriers have performed or will perform the transportation?
- 20. Who has paid or will pay the freight and related charges?
- 21. What were those charges? Will future charges be the same?
- 22. What origins, destinations and routes have been or will be involved?
- 23. Has any preference for United States carriers been included in the contracts or agreements?

- 24. If so, under what cargo preference law, and what are the arrangements? If not, why not?
- 25. What agencies, and which individuals, were consulted in determining the applicability of cargo preference to the various transactions? In particular, was the Maritime Administration consulted on this question?
- 26. Who made the final decision on whether cargo preference applied?

Second, in your testimony you noted that the Department of Agriculture wrote to the New Zealand Dairy Board asking it to consider the use of U.S.-flag vessels whenever possible. You also stated that the Board replied in writing that it would do its best. (See Transcript at pages 44-45.) Please furnish the Committee with copies of these letters.

Third, in your colloquy with Congressman Oberstar, you stated that the New Zealand Dairy Board would have insisted on a lower price for the butter if the Agriculture Department had insisted on applying cargo preference to the sale. Please supply the documentation that supports this claim. (See Transcript at pages 52 and 56.)

Next, on page 5 of your prepared testimony, you list the transportation costs assumed by the Agriculture Department in setting the price for the butter. Freight and related charges to New Zealand, where most of the butter will be shipped, are omitted. Please state what the Department assumed these charges would be when it set the butter sales price. What was the basis for these freight-cost assumptions? Have your assumptions proven accurate? If estimated transportation costs to any destinations other than New Zealand and Belgium were considered in setting the price for the butter, what were the destinations and what were the estimated charges? (See Transcript at page 70.)

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As you agreed to do, please confirm the chart attached as Appendix A to the Committee staff's memorandum or note any discrepancies between the statistics contained in that chart and your own figures. An extra copy of the chart is enclosed for your convenience. (See Transcript at page 70.)

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In your closing remarks before the Committee, you indicated your willingness to reexamine the Agriculture Department's position

on the applicability of cargo preference to this butter sale and other similar transactions. Please furnish the Committee with the results of your examination as they are available. (See Transcript at pages 70-71.)

Finally, the Committee reiterates its desire, expressed at the hearing and agreed to by you, to be kept informed of all future butter shipments under this contract. Notice to the Committee should include the shipment date, origin and origin port, destination and destination port, amount of butter shipped, carrier and transportation charges. (See Transcript at page 71.)

Thank "'u for your cooperation. I and the other Committee Members look forward to hearing from you.

Sincerety

WALTER B. JONES
Chairman

Enclosure

cc: Hon. James L. Oberstar

# APPENDIX A

# NEW ZEALAND DAIRY BOARD PAST AND PROPOSED BUTTER SHIPMENTS

DATE	TONS	ORIGIN	DESTINATION	CARRIER
10-2-81	600	Philadelphia, PA	New Zealand	Columbus Line (Germany)
10-12-81	21.60	Philadelphia, PA	New Zealand	Pace Line (U.K
10-15-81	1000	Green Bay, WI	Belgium	Trans Ocean Re (Philippines)
10-15-81	700	Kenosha, WI	Belgium	Trans Ocean Re- (Philippines)
10-18-81	2160	Philadelphia, PA	New Zealand	Farrell Line
10-28-51	900	Philadelphia, PA	New Zealand	Pace Line (U.:
11-5-81	1800	Philadelphia, PA	New Zealand	Farrell Line ()
9-31 -9-	1800	Philadelphia, PA	New Zealand	Columbus Ameri- (Germany)
11-11-61	1800	Philadelphia, PA	New Zealand	Farrell Line (



Foreign Agricultural Service Washington, D.C. 20250

**DEC** 8 1981

Honorable Walter B. Jones Chairman, Committee on Merchant Marine and Fisheries House of Representatives Washington, D.C. 20515

Dear Mr. Chairman:

This is in response to your letter of November 16, 1981, in which you have asked us to respond to specific questions dealing with the Poland and New Zealand dairy sales made by the Commodity Credit Corporation. Our responses to these questions are as follows:

#### POLISH DAIRY SALES

1. How many contracts or other agreements to sell or donate surplus commodities have been concluded? Please supply the Committee with a copy of each contract or agreement.

There has been a total of three sales concluded for shipment of dairy products to Poland as follows:

		Quantity (MT)			Price (MT)		
Date	Buyer	NFDM	Butter	Cheese	NFDM	Butter	Cheese
4/17/81	Hortex- Polcoop	30,000	30,000		\$770.00	\$1,575.00	
8/24/81	Catholic Relief Services (CRS)	8,000	600	400	110.23	110.23	\$ 110.23
10/28/81	Hortex- Polcoop	10,000	10,000	8,000	770.00	1,575.00	1,025.00

Copies of these contracts have been attached.

2. Are any other contracts or agreements being negotiated or are any other future sales or donations contemplated?

CRS has expressed an interest in buying additional dairy products for shipment to Poland. However, no negotiations have been conducted to date.

3. With respect to each contract or agreement: under what authority, statutory or otherwise, was it concluded?

For all three sales, statutory authority is found in Section 407 of the Agricultural Act of 1949, as amended, and in Sections 4 and 5 of the Commodity Credit Corporation Charter Act, as amended. The General Sales Manager made the sales after they were approved by the CCC board or the Secretary acting for the Board.

4. What was the reason for it? For example, was it for purely humanitarian purposes; was it to reduce U.S. stocks, or for some other reason?

We had enormous stocks of perishable dairy products in inventory with no practical or feasible domestic or foreign outlets, and because Poland is not a usual market for dairy products from dairy exporting countries, we were able to dispose of some of our surplus commodities while maintaining commitments made to our trading partners under the General Agreement on Tariffs and Trade.

5. When was the contract or agreement executed?

See answer to question number 1.

6. Who are the parties?

The contracts dated April 17, 1981, and October 28, 1981, are between the Commodity Credit Corporation (CCC) and HORTEX-POLCOOP, an authorized foreign trade enterprise of the Polish People's Republic. Under the contract dated October 28, 1981, CARE will be monitoring the distribution of the commodities, but CARE is not a party to the contract. The contract dated August 24, 1981, is between CCC and CRS.

7. If individuals or groups other than the parties were involved in the conception, negotiation or execution of the transaction, who are they and what role did they play?

Under the contract dated October 28, 1981, CARE is responsible for monitoring the distribution of the commodities to preschool children in Poland. This will be accomplished under an agreement between CARE and the Polish Ministry of Health and Social Welfare. No other entities were involved in these transactions.

8. What commodities are involved?

See answer to question number 1.

9. What quantities of these commodities?

See answer to question number 1.

10. These quantities represent what percentage of total U.S. stocks?

Based on CCC's uncommitted dairy inventories as of November 13, 1981, these sales represent 13 percent of CCC's total stocks as follows:

	Uncommitted Inventory (M.T.) November 13, 1981	Percent Represented by Polish Sales	
Butter	92,535	44*	
Cheese	252,200	3%	
Nonfat dry milk	375,575	137	
TOTAL	720,310	13%	

The uncommitted inventories do not include any commodities sold under the Polish or New Zealand contracts or any commodities committed for domestic programs.

11. How are these commodities generally stored and for how long?

The type of storage and the length of time the-commodities have been in storage are as follows:

	Year of 1	Production (Me	tric Tons)	
Commodities	1980	1981	Total	Type of Storage
Butter	45,360	47,175	92,535	Freezer
Cheese	45,360	206,840	252,200	Cooler
Nonfat dry milk	151,500	224,075	375,575	Dry Storage
TOTAL	242,220	478,090	720,310	

All dairy products are perishable commodities. The dairy industry does not store dairy products more than six months to one year.

CCC has stored NDM and butter up to three years without serious deterioration. Cheese is a more perishable commodity subject to mold and we are experiencing some mold development in our cheese inventory. No definitive studies have been conducted on what the maximum length of storage is for cheese.

12. What is the sales price?

See answer to question number 1.

13. What were the world, private domestic, and federal support prices for each commodity on the contract date?

U. S. Dollars Per M.T.

	World Price	Domestic Wholesale Price	Federal Support Price
- F.O.E	3. European Port $\underline{1}/$	Chicago	Chicago
April 17, 1981			
Butter	\$2,300.00	\$3,240.76	\$3,284.85
Nonfat Dry Milk	1,100.00	2,050.28	2,072.32
August 24, 1981	~~		
Butter	2,400.00	3,262.81	3,284.85
Nonfat Dry Milk	1,100.00	2,050.29	2,072.32
Cheddar Cheese (40 1b.) (Block)	1,300.00- 2,000.00 <u>3</u> /	2,998.26 <u>2</u> /	3,086.44
October 28, 1981			
Butter	2,400.00	3,262.81	3,284.85
Nonfat Dry Milk	1,100.00	2,072.32	2,072.32
Cheddar Cheese (40 1b.) (Block)	1,300.00-	3,020.30 <u>2</u> /	3,086.44

World Price is for butter that is 82 percent butterfat and unsalted compared to U.S. butter that is 80 percent butterfat and salted. U.S. butter would be discounted at least 2-3 cents per pound on world market.

<sup>2/</sup> Wisconsin cheese exchange.

<sup>3/</sup> World cheddar cheese price varies depending on quality, age, etc.

<sup>14.</sup> What are the other terms of the contract or agreement? For example, will payment be in dollars; will payment be deferred; will interest be charged; if so, at what rate; if not, why not; what are any other special terms or conditions?

Under the contracts dated April 17, 1981, and October 28, 1981, payment will be made in Polish zlotys upon presentation of shipping documents by CCC to the Bank Handlowy w Warszawie S.A., Chalubonskiego 8,00-950 Warszawa, to an interest bearing account established by the United States Government at Narodowy Bank Polski. Payment will be made at the official exchange rate for U.S. dollars published by Narodowy Bank Polski, and will accrue interest at the rate which applies to the accounts held by the public on day-to-day withdrawal accounts, but not less than three percent per annum. With respect to the payment terms under the contract with CRS, payment will be made in U.S. dollars upon completion of each shipment under an irrevocable letter of credit or in the form of cash, certified check or cashier's check payable to CCC prior to delivery.

15. What agencies, and which individuals, were responsible for negotiating the transaction?

The staff of the General Sales Manager was authorized and responsible for negotiating the Poland dairy sales.

16. Who signed the contract or agreement, and on behalf of what organization or group?

On behalf of CCC, Richard Smith, then Acting General Sales Manager, signed the contract dated April 17, 1981, and Alan Tracy, General Sales Manager, signed the contracts dated August 24, 1981, and October 28, 1981. For Poland, the two contracts with Hortex-Polcoop were signed by Janusz Plorczak as Deputy Director for Hortex-Polcoop. The contract with CRS was signed by Bishop Edwin B. Broderick for CRS and Alan Tracy for CCC.

17. Who made the initial overtures about the possibility for the transaction--how did the idea originate?

The initial overtures were made by the Polish Government for the April sale, by CRS for the August sale and by CARE for the October sale.

- 18. The commodities have been or will be shipped by what method?
  CCC will deliver the commodities f.o.b. vessel stowed and the buyer is responsible for arranging ocean transport.
- 19. Which carriers have performed or will perform the transportation?
  The commodities under all three contracts have been or are expected to be lifted by Polish ocean liners.
- 20. Who has paid or will pay the freight and related charges?
  The freight and related charges for all three sales will be paid for by the Polish Government.

21. What were those charges? Will future charges be the same?

These commodities have been shipped on Polish vessels at the expense of the Polish Government and we have been unable to determine the freight cost.

22. What origins, destinations and routes have been or will be involved?

About 38,000 metric tons have been lifted at East Coast ports, 2,700 metric tons have been lifted at Great Lakes ports, and 7,400 metric tons have been lifted at Gulf ports. Destination is Gdynia, Poland. All cargo has been shipped via Polish ocean liner vessels.

23. Has any preference for United States carriers been included in the contracts or agreements?

The contracts do not require preference for U.S. carriers.

24. If so, under what cargo preference law, and what are the arrangements? If not, why not?

The Department determined that the requirements of the Cargo Preference Act were not applicable to an export sale of CCC stocks if the sale was a "commercial" rather than a "concessional" sale. A commercial sale is viewed as an export sale made on the best terms and conditions obtainable in the light of competitive conditions in the world market. We have testified, in connection with the recent export sale of butter to New Zealand, as to the various factors affecting exports of dairy products abroad. We felt that these factors applied equally to the sales to Poland of dairy stocks. Consequently, such sales were properly termed commercial. Furthermore, the sales to Poland were made with payments upon delivery without any provision for advancement of funds, extension of credit, or for guaranteeing convertibility of foreign currencies. Under these circumstances, we believed that the Cargo Preference Act did not apply.

Dairy products sold to CRS for distribution by CRS to the needy in Poland were from the enormous stocks of perishable dairy products held in CCC inventory for which, as explained above, there are practically no outlets, domestic or foreign. In our discussions with CRS we were informed that Poland had agreed with CRS to provide transportation for the commodities using its own ships. No provision requiring the use of US ships was included in the CCC contract with CRS.

25. What agencies, and which individuals, were consulted in determining the applicability of cargo preference to the various transactions? In particular, was the Maritime Administration consulted on this question?

The Maritime Administration was not consulted for the April and August sales. However, after the negotiations began for the October sale, the Maritime Administration was advised that another sale was being negotiated. Also, the General Counsel's Office provided general guidance regarding cargo preference.

26. Who made the final decision on whether cargo preference applied?
The General Sales Manager determined that cargo preference would not apply.

#### NEW ZEALAND DAIRY SALE

- Our letter of August 10, 1981, to Mr. Bruce Stuart, New Zealand Milk Products, Inc., and his telex replies of October 30, 1981, and November 3, 1981, are attached for the Committee's review.
- 2. During the contract discussions it was decided that cargo preference did not apply to this transaction. The shipping charges we discussed in negotiating the selling price of the butter did not include the requirement that a minimum of 50 percent of the butter move to New Zealand on U.S. flag vessels. Subsequently, we contacted the New Zealand Dairy Board to ask what would have been their offer if we had requested at least 50 percent be shipped on U.S. bottoms. As the attached reply from the New Zealand Dairy Board indicates, they negotiated on the basis of being allowed to choose competitive shipping and the removal of competition on freight would have substantially affected the commercial balance, possibly putting the whole transaction in question. (See attached letter from New Zealand Embassy dated November 20, 1981.)
- 3. At the time the contract was being negotiated, the Department assumed the freight and related charges for shipments to New Zealand would be as follows:

U. S. Dollars	U.	s.	Do1	.1a	r
---------------	----	----	-----	-----	---

	Per Metric Ton	Per Pound
Inland freight warehouse to port	\$ 70	\$.032
Stowage and port costs	60	.027
Ocean freight to New Zealand	180	.082
TOTAL	\$310	\$.141

Ocean freight to major European ports, such as Antwerp, was estimated at \$160 per metric ton (.073/lb.). No other destinations were

considered in setting the price. However, we did take into account conversion of the butter to butteroil. The costs to convert butter at 80 percent butterfat to butteroil of nearly 100 percent butterfat amounts to around \$.34 per pound. Considering the 70 cents for the butter plus the freight and other costs which add up to \$1.18 per pound (\$2,600 per metric ton), we received a fair price for butteroil on world markets.

- Our records indicate some corrections to the chart (Appendix A). We have corrected the chart you furnished us and are enclosing it for your records.
- 5. The Department is currently reviewing its position regarding the applicability of the Cargo Preference Act to sales of CCC stocks. The Department has discussed the application of the Cargo Preference Act with the Maritime Administration and has agreed to consult with that agency on future export sales. After a thorough review of the Department's position on this matter, we will advise the Committee of our views.
- We will keep the Committee informed of all future butter shipments under this contract including the specific information you have requested.
- Please find attached a copy of our testimony furnished to your committee on November 9, 1981. Corrections that should be made have been indicated on the attached copy.

Sincerely,

Administrator

Attachments

# CONTRACT FOR SALE OF NONFAT DRY MILK AND BUTTER

THIS AGREEMENT, made in the City of Hashington, District of Columbia, on April 17, 1981, by and between HOPTEX-POLCOOP, an authorized foreign trade enterprise of the Polish People's Republic (hereinafter called HORTEX-POLCOOP), and COMMODITY CREDIT CORPORATION, an agency and instrumentality of the United States within the Department of Agriculture (hereinafter called the "CCC"), WITHESSETH:

WHEREAS, HORTEX-POLCOOP desires to purchase from CCC a quantity of nonfat dry milk and butter for export to the Polish People's Republic for exclusive use in Poland,

NOM, THEREFORE, IT IS MUTUALLY AGREED AS FOLLOWS:

# ONE - QUANTITY.

CCC agrees to sell to HORTEX-POLCOOP 30,000 metric tons of butter, 5 percent more or less, and 30,000 metric tons of nonfat dry milk, 5 percent more or less.

# THC - QUALITY.

#### A. Butter.

- Butter shall be U.S. Grade A or higher, at the option of CCC, and shall meet the United States Standards for Grades of Butter, effective April 1, 1977.
- 8utter shall have been manufactured in the United States after April 1, 1980.
- 3. Butter shall have only natural color added, if any.

## B. Monfat Dry Milk.

 Monfat Dry Milk shall be U.S. Extra Grade and shall meet the United States Standards for Grades of Nonfat Dry Milk (spray process), effective April 1, 1973. Nonfat dry milk shall have been manufactured after January 1, 1980.
 THREE - PACKAGING AND PACKING.

# A. Nonfat Dry Milk

- 1. Packaging Description: 50-pound sacks (1.22 cubic feet per sack) constructed of 3 layers of kraft paper, with inside linings of polyethylene, which are suitable for exportation. Sacks may be sealed by sewing horizontally along upper edge, without sewing the polyethlyene linings, or they may be sealed with heat. All exposed threads will be covered with paper to prevent insect and dust penetration into the powder. Each sack will contain a loose polyethylene lining insert, gathered in the form of a goose neck and tied.
- Package Markings Sacks containing nonfat dry milk will show the following:
  - (a) name of product
  - (b) name and location of manufacturing plant or plant number
  - (c) month and year manufactured
  - (d) manufacturer's lot number

# B. Butter

- T. Package Description Butter will be packed in 68 pounds net weight in fiberboard shipping containers (1.1 cubic feet per container). Each container shall be lined with a vegetable parchment paper or a polyethylene bag or wrapper accepted by FAO/WHO.
- Package Markings containers will be marked to show name and location of manufacturing plant or plant number, name of product, churn number, and marked net weight.

# FOUR - PRICE.

- a. <u>Butter</u>. The purchase price of the butter shall be U.S. \$1,575 per metric ton F.O.R. vessel stowed at the Port of Philadelphia or the Port of Camden, New Jersey, or the Port of New Orleans at CCC's option.
- b. <u>Nonfat Dry Milk</u>. The purchase price of the nonfat dry milk shall be U.S. \$770 per metric ton F.O.B. vessel stowed East Coast or Gulf ports, as mutually agreed to by the parties.

# FIVE - PAYMENT .

- a. Payment for sales of butter and nonfat dry milk shall be made by HORTEX-POLCOOP upon the presentation by CCC to the Bank Handlowy w Warszawie S.A., Chalubinskiego 8,00-950 Warszawa of the following documents approved by HORTEX-POLCOOP:
- 2 copies and 3 originals of clean on board Bills of Lading (evidencing refrigerated storage for the butter)
- Invoice with specification of goods included (5 copies)
- grading certificates issued by the United States Department of Agriculture
- certificate indicating commodities are fit for human consumption (one copy)
- CCC declaration stating that the original certification that the commodities are fit for human consumption has been sent with the goods.
- b. Payment shall be made in Polish zlotys to the interest bearing account--established by United States Government for the purpose of implementation of this contract at Narodowy Bank Polskis-not later than 10 working days after receipt by Bank Hindlowy w Warszawie, S. A., of the

- foregoing documents in good order. U.S. embassy will be informed upon making payment in Polish zlotys to the above account.
- c. Payment shall be made at the official exchange rate for U.S. dollars published by Narodowy Bank Polski and in effect at the time CCC presents to the Bank Handlowy Warszawie S.A. the documents identified in subparagraph (a) of this Article Five.
- d. The amount of zlotys deposited in the interest bearing account established for CCC at Narodowy Bank Polski shall accrue interest at the rate which applies to the accounts held by the public on day-to-day withdrawal accounts, but not less than three percent per annum.

# SIX - DELIVERY.

- a. <u>Butter</u>. CCC shall deliver butter to HORTEX-POLCOOP F.O.B. vessel "Stowed at the Port of Philadelphia, or the Port of Camden, New Jersey, or the port of New Orleans, at CCC's option, at the rate of not more than 4,200 metric tons per vessel beginning on or about May 22, 1981.

  All shipments should be completed on or before December 31, 1981.
- b. <u>Nonfat Dry Milk</u>. CCC shall deliver to HORTEX-POLCOOP F.O.B. vessel stowed at East or Gulf Coast ports nonfat dry milk shipped at the rate of approximately 4,000 metric tons per month, beginning in May 1981. All shipments should be completed on or before December 31, 1981.
- c. At least 14 days prior to the final date that CCC is to have the commodity at port, HORTEX-POLCOOP or their forwarding agent, AMERPOL International, Inc., will furnish CCC with a notice to

deliver listing the vessel name, estimated time of arrival and port, and quantity scheduled to be lifted. Notice shall be sent to the Kansas City Agricultural Stabilization and Conservation Service(ASCS) Commodity Office, P.C. Bor ESIC, Mansas City, Missouri 64114, (Telex 434126).

d. In the event the vessel fails to lift all or a part of the shipment as scheduled, HOPTEX-POLCOCP shall be responsible for all expenses resulting from such failure, including but not limited to pier or warehouse storage, rail, truck and/or barge denurrage, inspection and deterioration. In the event CCC fails to deliver all or a part of the quantity scheduled to be lifted, CCC shall be responsible for all expenses resulting from such failure including but not limited to dead freight or denurrage.

#### SEVEN - GENERAL TERMS.

- a. HOPTEX-POLCOGP warrants that the commodities delivered under this contract shall be exported to Poland for consumption only in Poland.
- b. The butter and nonfat dry milk delivered under this contract shall be suitable for human consumption.

#### EIGHT - CONTINGENT FEES.

HORTEX-PCLCOOP warrants that it has not employed any person for the purpose of obtaining under this contract a commission, percentage in the way of a brokerage fee, or additional fees, with the exception of trusted employees and trusted commercial agencies established by HORTEX-PCLCOOP with the object of obtaining such contracts and that it has not made and will not make any such payment. Without limiting the other rights which it may have, breach

of this provision will allow CCC to cancel this contract, with no responsibility on its part, and at its discretion, to add to the contracted purchase price the amount of any such commission, percentage, brokerage costs or additional costs.

#### NINE - OFFICIALS NOT TO BENEFIT.

No member or delegate of the Congress of the United States of America or resident commissioners, will have any participation in this contract, nor any profit which may be derived therefrom, except in the case where the contract is made with a corporation with which such person may be connected and which may profit in general.

#### TEN - DIFFERENCES IN INTERPRETATION.

If nonfat dry milk or butter does not meet Polish health requirements that conform with FAR/WHO health regulations or does not conform with quality standards as specified in the contract, CCC will be notified by telex within 45 days after ocean bill of lading date, stating reasons as to why butter or nonfat dry milk does not meet health requirements or quality standards with DCLIVE Such determinations will not effect payment to CCC.

All disputes arising out of or relating to the present contract including disputes concerning the validity and interpretation of the contract which the parties are not able to solve in a friendly way, shall only be arbitrated in the United States in a manner to be mutually agreed by both parties within 14 days from the date this contract is executed. Both parties agree to exclude any form of jurisdiction of any court.

#### ELEVEN - REPRESENTATIVES OF THE CONTRACTING PARTIES.

The following representatives of the contracting parties will have authority to make the necessary decisions in any instance requiring mutual

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agreement with respect to the terms of this contract:

FOR CCC: The General Sales Manager, Foreign Agricultural Service.

FOR HORTEX-POLCOOP: The Deputy Director, Bureau of HORTEX-POLCOOP.

TWELVE - OFFICIAL ADDRESSES.

The parties hereby establish for purposes of this contract, their addresses as follows:

- A. Copmodity Credit Corporation, United States Department of Agriculture, 14th Street and Independence Avenue, S.P., Washington, D.C. 20250.
- B. HORTEX-POLCOOP, Foreign Trade Enterprise, Central Union of the Agricultural Co-operatives "Samopomoc Chlopska", Warszawa, Kopernika 30, Poland.

IN WITNESS WHEREOF, this Agreement has been executed by and on behalf of CCC and HORTEX-POLCCOP by their respective duly authorized officers.

COMMODITY CREDIT COPPORATION

By Richard South

Title: Acting General Sales Manager and Vice President, Commodity Credit Corporation

Date: APR 17, 1981.

HORTEX-POLCOCP

Janusz Florczak

Title: Deputy Director, HORTEX-POLCOCP

Date: Am 1 H. 1981.

### CONTRACT FOR SALE OF NONFAT DRY MILK AND BUTTER

#### AMENDMENT 1

THIS AGREEMENT, made in the City of Washington, District of Columbia, by and between HORTEX-POLCOOP, an authorized foreign trade enterprise of the Polish People's Republic (hereinafter called HORTEX-POLCOOP), and COMMODITY CREDIT CORPORATION, an agency and instrumentality of the United States within the Department of Agriculture (bereinafter called CCC), WITNESSETH:

WHEREAS, HORTEX-POLCOOP and CCC have entered into a Contract for Sale of Nonfat Dry Milk and Butter dated April 17, 1981, and

WHEREAS, Article Ten of the said contract provides, in part, that within 14 days from the date said contract is executed the parties shall mutually agree to the manner of arbitration for resolving disputes arising under the said contract, and

WHEREAS, the parties to said contract have agreed to the manner in which disputes arising under the said contract shall be arbitrated.

NOW, THEREFORE, IT IS MUTUALLY AGREED that Article Ten of the said contract be amended and is hereby amended to read as follows:

#### TEN - ARBITRATION

- A. If nonfat dry milk or butter does not meet Polish health requirements that conform with FAO/WHO health regulations or does not conform with quality standards as specified in the contract, CCC will be notified by telex within 45 days after ocean bill of lading date, stating reasons as to why butter or nonfat dry milk did not meet health requirements or quality standards when delivered. Such determinations will not affect payment to CCC.
- B. All disputes, controversies, or differences which may arise between the parties, out of or in relation to or in conection with this contract, or the breach thereof, shall be settled by arbitration.

In case arbitration is sought against HORTEX-POLCOOP, arbitration shall take place in Poland under the Rules of the Court of Arbitration at the Polish Chamber of Foreign Trade in Warsaw.

In case arbitration is sought against CCC, arbitration shall take place in the United States in the City of New York, State of New York, under the Commercial Arbitration Rules of the American Arbitration Association.

- C. The number of arbitrators shall be three, including an arbitrator-chairman of the tribunal who shall be neither American nor Polish.
  - D. The language to be used in the arbitral proceeding shall be English.
- E. The arbitral award shall be final and the parties agree to execute it voluntarily and without delay. Further, the parties agree that:
- (1) If the aribtration takes place in the United States, a judgment by the United States District Court for the District of Columbia may be entered on the award made.
- (2) If the arbitration takes place in Poland, the award will be enforced as specified in paragraph 32 of the Rules of the Court of Arbitration at the Polish Chamber of Foreign Trade.

IN WITNESS WHEREOF, this Agreement has been executed by and on behalf of CCC and HORTEX-POLCOOP by their respective duly authorized officers.

COMMODITY CREDIT/CORPORATION

RICHARD A. SHITH

Title: Acting General Sales Manager and Vice President, Commodity

Credit Corporation

Date: Mar 19, , 1981.

HORTEX-POLCOOP

JANUSZ FLORCZAK

Title: Deputy Director, HORTEX-POLCOOP

HORTEX-POLCOOP

Date: ///ay 5+1~, 1981.

# CATHOLIC RELIEF SERVICES

#### UNITED STATES CATHOLIC CONFERENCE

1011 First Avenue, New York, NY 10022, U.S.A.

Most Revi Edwin Bi Broderick ID Di Executive Director Revi Msgri Robert J. Colli Assistant Executive Divector Jean J. Chanard Service Director of Operations

Telephone: 1 (212) 838-4700 Cable: CATHWEL New York Telexes: 224241 and 667207

August 27, 1981

Mr. Alan Tracy
General Sales Manager
Associate Amministrator
Foreign Agricultural Service
United States Department of Agriculture
Washington, D. C. 20250

Dear Mr. Tracy:

This is to acknowledge receipt of your letter of August 26, 1981, along with original and copy of Contract OGSM-93 calling for the purchase of 9,000 metric tons of dairy products to be used by Catholic Relief Services for the purpose of feeding needy people in the Polish Peoples' Republic.

The original contract, duly countersigned by the Executive Director of Catholic Relief Services, Bishop Edvin E. Broderick, is returned herewith, as requested.

Thanking you, and all members of your Staff, for your cooperation, I am

Sincerely yours,

Anthony M. Foddai Director, Frogram and Supply

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# AGREEMENT FOR THE SALE OF NONFAT DRY MILK, BUTTER AND CHEESE CONTRACT - OCSM-93

THIS ACREEMENT made and entered into this 24th day of August 1981, by and between the Commodity Credit Corporation (hereinafter referred to as "CCC"), a corporate agency of the United States of America within the Department of Agriculture, and Catholic Relief Services, United Catholic Conference, Inc., a nonprofit District of Columbia corporation (hereinafter referred to as "CRS").

#### WITNESSETH

WHEREAS, CRS desires to purchase from CCC the quantities of food commodities described in Section One of this Agreement for the purpose of feeding needy families in the Polish Peoples Republic.

NOW, THEREFORE, it is mutually agreed as follows:

#### ONE - QUANTITY.

CCC agrees to sell CRS 3,000 metric tons of wonfat dry milk (here nafter referred to as "NDM"), 3,000 metric tons of butter, and 3,000 metric tons of Pasteurized Process American Cheese (hereinafter referred to as "cheese"), five percent more or less, at CCC's option.

#### TWO - QUALITY.

#### A. Butter

- Butter shall be U.S. Grade A or higher, CCC\*s option, and shall meet the United States Standards for Grades of Butter, effective April 1, 1977.
- Butter shall have been manufactured in the United States after April 1, 1980.
- 3. Butter shall have only natural color added, if any.

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#### B. Nonfat Dry Milk.

- Nonfat dry milk shall be U.S. Extra Grade and shall meet the United States Standards for Grades of Nonfat Dry Milk (spray process), effective April 1, 1973.
- 2. Nonfat dry milk shall have been manufactured after January 1, 1980.

#### C. Cheese.

- 1. The cheese shall be Pasteurized Process American Cheese containing not more than 40 percent of moisture and not less than 50 percent of milkfat on the waterfree basis. The cheese shall have a uniform medium yellow color. Its body shall be smooth, medium firm, and resilient with practically no pinholes or openings. Its texture shall be close and free from lumps or graininess, and shall slice freely, shall not show more than a slight brittleness or roughness, and shall not stick to the knife or break when cmt. Its flavor shall be pleasing and characteristic of process cheese made from mild to medium-cured Cheddar cheese, and shall be free from undesirable flavors and odors.
- Cheese shall have been manufactured after January 1, 1980.
   THREE PACKAGING AND PACKING.

#### A. Nonfat Dry Milk.

 Packaging Description: Nonfat dry milk shall be packaged in 50-pound sacks (1.22 cubic feet per sack) constructed of three layers of kraft paper, with inside linings of polyethylene,
 which are suitable for exportation. Sacks may be sealed by sewing horizontally along uppper edge, without sewing the polyethylene linings, or they may be sealed with heat. All exposed threads will be covered with paper to prevent insect and dust penetration into the powder. Each sack will contain a loose polyethylene lining insert, gathered in the form of a goose neck and tied.

- 2. Package Markings Sacks containing nonfat dry milk shall show the following:
  - (a) Name of product
  - (b) Name and location of manufacturing plant or plant number
  - (c) Month and year manufactured
  - (d) Manufacturer's lot number

#### B. Butter.

- Package Description: Butter will be packed in 68 pounds marked net weight fiberboard shipping containers (1.1 cubic feet per container). Each container shall be lined with a vegetable parchment paper or a polyethylene bag or wrapper.
- Package Markings Containers will be marked to show name and location of manufacturing plant or plant number, hame of product, churn number, and marked net weight.

#### C. Cheese.

- Package Description: The cheese loaves will be five
  pounds net weight wrapped in heat sealed cellophane or polyvinylidene chloride (Saran) coated cellophane, and packed in
  fiberboard or chipboard cartons with covers. Six loaves will
  be packed in each corrugated fiberboard shipping container (0.6
  cubic feet per container).
- Package Markings The cellophane pouches and cartons will be marked to show name of product. The shipping containers will

be marked to show name or project, VSDA+AMS plant number, and month and year packaging code.

# FOUR - QUALITY.

OCC shall deliver to CRS NDM, butter and cheese of at least the grade or quality specified in Section Two hereof and fit for human consumption, as determined upon an inspection made by or on behalf of CCC.

#### FIVE - DELIVERY.

- A. CCC shall deliver the commodities to CRS F.O.B. vessel stowed at East Coast or Gulf ports, or one of the ports at the Great Lakes, U.S.A. All shipments should be completed on or before August 31, 1982.
- B. At least 30 days prior to the final date that CCC is to have a quantity of a commodity at port, CRS will furnish CCC with a notice to deliver listing the vessel name, estimated time of arrival and port, and quantity scheduled to be lifted. Precise date of arrival must be furnished by CRS at least 10 days prior to loading. Notice shall be sent to the Agricultural Stabilization Conservation Service (ASCS), Kansas City Commodity Office (KCCO), P.O. Box 8510, Kansas City, Missouri 64114, (telex 434126).
- C. If the vessel fails to lift all or a part of the shipment as scheduled, CRS shall be responsible for all expenses resulting from such failure, including but not limited to pier or warehouse storage, rail, truck and/or barge demurrage, inspection and deterioration. If CCC fails to deliver all or part of the quantity scheduled to be lifted, CCC shall be responsible for all expenses resulting from such failure including but not limited to dead freight or demurrage.

#### SIX - DETERMINATION OF NET WEIGHT.

The net weight of the NDM, butter and cheese delivered shall be determined by CCC on the basis of the grading and weight certificates issued by the

United States Tepartment of Agriculture at the two of to passessed the constituty, subject to any necessary subsequent adjustments in quantity as determined by CCC prior to delivery. If there is a discrepancy between quantities shown on the grading certificates and the ocean bills of lading, the quantities shown of the ocean bills of lading shall be deemed correct.

SEVEN - TITLE AND RISK OF LOSS.

Title and risk of loss for each lot of NDM, butter and cheese shall pass to the CRS upon of delivery to the vessel specified in the notice to deliver. EIGHT - PURCHASE PRICE.

The purchase price of the NDM, butter and cheese delivered F.O.B. vessel, stowed shall be \$110.23 per metric ton.

The estimated total purchase price of the commodity under this agreement, not adjusted for the tolerance of five percent more or less, is approximately \$992,070 based on \$110.23 per metric ton for 3,000 metric tons of NDM, 3,000 metric tons of butter, and 3,000 metric tons of cheese.

#### NINE - PAYMENT.

A. CRS shall establish an irrevocable letter of credit with a bank or banks in the United States in a form acceptable to CCC or CRS shall advance to CCC payment in U.S. dollars in the form of cash, certified check or cashier's check made out to CCC, prior to delivery. The cash or letter(s) of credit shall be in amounts sufficient to cover the amount of commodities to be delivered F.O.B. vessel stowed. If the purchase price of the commodities delivered or to be delivered is in excess of the funds provided by cash deposit and/or letter of credit, CRS shall promptly provide such additional amounts or coverage as may be demanded by CCC. Upon completion of deliveries under this agreement, CCC shall furnish CRS with an accounting and shall make refund of any balance of the cash advanced.

#### 00,511-93

- B. If CRS arranges for payment under a letter of credit, payment under the letter of credit shall be made upon presentation of the following documents:
  - Two copies and an original of clean on board ocean bills of lading
  - Invoice with specification of goods included (two copies)
  - Grading certificates issued by the United States Department of Agriculture
  - Certificate issued by the United States Department of Agriculture indicating commodities are fit for human consumption (one copy)

#### TEN - EXPORT REQUIREMENTS

CRS shall export to the Polish Peoples Republic not Later than August 31, 1982, or such extension of this period as may be approved by CCC, the identical commodities delivered to CRS and shall take south precautions as are necessary to prevent reentry of the commodities into the United States.

ELEVEN - LIABILITY FOR FAILURE TO EXPORT OR REENTRY OR HISSUSE.

- A. If any NDM, butter and cheese is not exported or its reentered into the United States except as otherwise provided in subsection B, the purchase price specified in Section Eight with respect to the quantity of the commodities which is not exported or which is reentered into the United States shall be adjusted to the domestic unrestricted use price as determined by CCC.
- B. In the event CRS is prevented from exporting any part of the NDM, butter and cheese by acts of the United States Government, CRS may return such unexported part of the commodity to GCC at point of delivery and CCC shall refund the purchase price paid for such commodity.

# AWILVE - RECORD RETENTION AND EXAMINATION.

CCC and its duly authorized representatives shall, until the expiration of three years after final payment under the contract, have access to and the right to examine any books, documents, papers, and records of CRS involving transactions relating to this contract. Adequate facilities shall be made available to representatives of CCC in the recipient country for observing and reviewing the disposition of the commodity authorized herein and for conducting end-use checks and audits.

# THIRTEEN - CONTINGENT FEES.

CRS warrants that it has not employed any person to solicit or secure this contract upon any agreement for a commission, percentage, brokerage, or contingent fee and that no such consideration or payment has been made or will be made. Breach of this warranty shall give CCC the right to annul the contract, or, at its discretion to add to the contract price the amount of such commission, percentage, brokerage, or contingent fees. This warranty shall not apply to commissions payable by CRS upon contracts or sales secured or made through bona fide established commercial or selling agencies maintained by CRS for the purpose of securing business.

# FOURTEEN - OFFICIALS NOT TO BENEFIT.

'No member of or delegate to the Congress of the United States or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom, but this provision shall be not be construed to extend to this contact if made with a corporation for its general benefit.

# FIFTEEN - REPRESENTATIVES OF CONTRACTING AGENCIES

The representatives of the contracting agencies designated below shall have authority to settle matters requiring mutual agreement.

IN WITHESS UMEREOF, CCC and CRS have caused this agreement to be executed by their respective duly authorized officers.

COMMODITY CREDIT CORPORATION

CATHOLIC RELIEF SERVICES

General Sales Manager

and Vice President, CCC

Catholic Relief Services-USCC

Date: August 27, 1981

Foreign Agricultural Service

122-4336(29)

10/16/91

TAPomeroy/mar

73224

Mr. Anthony M. Foddai Director, Program and Supply Catholic Relief Services 1011 First Avenue New York, N.Y. 10022

Ielexes 224241 and 667207

Your telex of October 15 requested that we amend the quantity mix of dairy products under Contract OGSM-93. In our letter to you of August 26, 1981, we agreed that the quantity mix of commodities under contract OGSM-93 could be amended by an exchange of letter or telex messages.

We hereby amend the quantities in section one of contract DGSM-93 to provide for 8,000 metric tons of nonfat dry milk, 600 tons of butter and 400 tons of cheese. All other terms and conditions remain unchanged.

James Ross Acting General Sales Manager and Associate Administrator

cc: TAPomeroy, Roosey, ETMcEtvain, LDWallace, SClosson/ASCS, DShaughnessy, JRoss, ATracy, CHarvey

FAS/EC/POD/CECB/TAPomeroy/mar/10/15/81:X-73224

- 114 -

SUBJECT: Dairy Sale to Poland

October 29, 1981

٠.,

FROM:

L. T. McElvain

L. I. Nellyain

Attached is the contract covering 10,000 tons each of butter and nonfat dry milk, and 8,000 tons of process cheese between CCC and HORTEX-POLCOOP for distribution to preschool children in Poland. The milk was sold for \$770 per MT, the butter for \$1575 per MT, and cheese for \$1025 per MT. This represents a total value of about \$31.6 million.

The contract was signed and finalized on October 28.

cc: Tracy
Ross
Shaughnessy
Wallace
McElvain
Godsey
Pomeroy
Ortega
Pence
Boyd, OGC
Iwamoto, OGC
Closson, ASCS
Harvey, (DLPD)

# CONTRACT FOR SALE OF NONFAT DRY MILK, BUTTER AND CHEESE

CONTRACT - OGSH-94

THIS AGREEMENT, made in the City of Washington, District of Columbia,
October 28, 1981, by and between HORTEX-POLCOOP, an authorized foreign trade
enterprise of the Polish People's Republic (hereinafter called "HORTEX-POLCOOP"),
and COMMODITY CREDIT CORPORATION, an agency and instrumentality of the United
States within the Department of Agriculture (hereinafter called "CCC"),
WITNESSETH:

WHEREAS, HORTEX-POLCOOP desires to purchase from CCC a quantity of nonfat dry milk, butter and cheese for export to the Polish People's Republic for distribution to preschool children in Poland and

WHEREAS, the Polish Ministry of Realth and Social Welfare has entered into an agreement with the Cooperative for American Relief Everywhere ("CARE") for the monitoring by CARE of such distribution.

NOW, THEREFORE, IT IS MUTUALLY AGREED AS POLLOWS:

# ONE - QUANTITY.

CCC agrees to sell to HORTEX-POLCOOP the following quantities of each commodity, 5 percent more or less, at CCC's option:

- (1) 10,000 metric tons of butter
- (2) 10,000 metric tons of fortified nonfat dry milk
- (3) 8,000 metric tons of process cheese

# TWO - QUALITY.

#### A. Butter.

- Butter shall be U.S. Grade AA, and shall meet the United States Standards for Grades of Butter, in effect on April 1, 1977.
- Butter shall have been manufactured in the United States after October 1, 1980.

- 3. Butter shall have only natural color added, if any.
- 4. If HORTEX-POLCOOP claims that the butterfat content of any butter delivered under this contract is less than the 80% minimum as specified in the United States Standards for Grades of Butter in effect on April 1, 1977, HORTEX-POLCOOP may submit samples of such butter to CCC for re-testing. Butter will be re-tested in accordance with procedures prescribed in Article Two, paragraph D.1. hereof. Any dispute regarding the percentage of butterfat found in any such sample will relate only to the butter manufactured in the churn from which the sample was drawn. HORTEX-POLCOOP will hold in reserve for re-testing by CCC at least one additional untested block of butter manufactured in such chura. CCC will allow HORTEX-POLCOOP a discount for delivered butter manufactured in each churn from which samples show a butterfat content of less than 80 percent, as specified herein. The discount for butter which has a butterfat content of less than 80 percent, as specified herein, will be US \$2.40 per metric ton for each 1/10 of one percent of butterfat reduction. Cost of re-testing will be borne by CCC if on re-testing it is determined that the butterfat content is less than 80%, as specified herein; otherwise, the cost of re-testing will be borne by HORTEX-POLCOOP. No claim based on reduced butterfat content will be recognized by CCC if received by the General Sales Manager and Vice President, CCC, more than two months after the date of the on-board bill of lading issued for shipment of the butter in dispute.

5. If BORTEX-POLCOOP does not accept CCC's results of retesting, an additional sample\_from the same churn shall be submitted for additional testing to a laboratory in West Germany mutually agreed to by the parties. In such case, the results obtained from the West German laboratory shall be binding on the parties and the cost of re-testing will be borne by the parties on the same basis as provided in subparagraph A. 4 of this Article.

# B. Nonfat Dry Milk.

- Nonfat dry milk shall be U.S. Extra Grade, shall be fortified with vitamins A and D, and shall meet the United States Standards for Grades of Nonfat Dry Milk (apray process), in effect on April 1, 1973.
- Nonfat dry milk shall have been manufactured in the United States after October 1, 1980.

# C. Cheese.

1. Cheese shall be Pasteurized Process American Cheese and shall contain not more than 40 percent moisture and not less than 50 percent milkfat on the waterfree basis. Cheese shall have a uniform, medium yellow color. Its body shall be smooth, medium firm, and resilient with practically no steam holes or openings. Its texture shall be close and free from lumps or graininess. Cheese shall slice freely, show not more than a slight brittleness or roughness, and not stick to the knife or break when cut. Its flavor shall be pleasing and characteristic of process cheese made from mild to medium-cured Cheddar cheese and shall be free from undesirable flavors and odors.

The pasteurized process American cheese shall have been manufactured in the United States after October 1, 1980.

# D. Testing Procedures.

#### 1. Butter

Inspection and testing procedures for the purpose of determining the grade, weight, and butterfat content shall be in accordance with the following USDA procedures:

- usda Notice to Graders dated January 25, 1980 (DA Instruction No. 918-11).
- b. USDA General Instructions for Inspection, Grading and Grade Labeling of Butter dated June 12, 1980 (DA Instruction No. 918-10).
- c. USDA Methods of Laboratory Analysis for Moisture, Pat, Salt, Curd, and PE dated November 30, 1972 (DA Instruction No. 918-101-1).

# 2. Nonfat Dry Milk

Inspection and testing procedures for the purpose of determining the grade and weight shall be in accordance with the following USDA procedures:

- a. USDA General Instructions for Sampling Nonfat Dry Milk dated July 13, 1970, as revised (DA Instruction No. 918-30).
- b. USDA Methods of Laboratory Analysis for Dry Whole Milk and Nonfat Dry Milk dated November 30, 1972 (DA Instruction No. 918-103-1).

#### 3. Cheese

Inspection and Tenting procedures for the purpose of determining the weight, moisture and fat content shall be in accordance with the following USDA procedures:

- a. USDA Notice to Inspectors, CCC Purchase of Process Cheese and Cheese Spread dated July 15, 1976, as revised (DA Instruction No. 918-22).
- b. USDA Methods of Laboratory Analysis for Bulk (Natural) Cheese, Process Cheese and Cheese Foods dated July 15, 1972, as amended (DA Instruction No. 918-102-1).

# THREE - PACKAGING AND PACKING.

#### A. Nonfat Dry Milk.

- 1. Packaging Description: 50-pound sacks suitable for exportation (approximately 1.22 cubic feet per sack) constructed of 3 layers of kraft paper, with inside linings of polyethylene. Sacks may be sealed by sawing horizontally along upper edge, without sawing the polyethlyene linings, or the sacks may be sealed with heat. If bags are sawn, exposed threads will be covered with paper to prevent insect and dust penetration into the powder. Each sack will contain a loose polyethylene lining insert, gathered in the form of a goose neck and tied.
- Package Markings Sacks containing nonfat dry milk shall be marked to show the following:
  - (a) name of product
  - (b) name and location of manufacturing plant or plant number
  - (c) month and year manufactured
  - (d) manufacturer's lot number

#### B. Butter.

 Package Description - Butter will be packed 68 pounds marked net weight in fiberboard shipping containers (approximately

- 1.1 cubic st per container). Each contains shall be lined with vegetable parchment paper or a polyethylene bag or wrapper.
- Package Markings Containers will be marked to show name and location of manufacturing plant or plant number, name of product, churn number, and marked net weight.

#### C. Cheese.

- 1. Package Description: Cheese loaves will be five pounds net weight wrapped in heat sealed cellophane or polyvinylidene chloride (Saran) coated cellophane containing not more than one milligram of vinyl chloride per one kilogram of Saran film weight, and packaged in fiberboard or chipboard cartons with covers. Six such loaves will be packed in a corrugated fiberboard shipping container (approximately 0.6 cubic feet per container) suitable for sea transportation.
- Package Markings The cellophane pouches and cartons will be marked to show name of product. The cartons will be marked to show net weight. The shipping containers will be marked to show name of product, plant number, and month and year packaging code.

# D. Other Markings For Nonfat Dry Milk and Cheese

In case CCC\_is not able to deliver nonfat dry milk and/or process

American Cheese without markings used for U.S. Food Donation Programs,

BORTEX-POLCOOP agrees to accept the goods with such markings. In such

case, however, such markings may be obliterated by BORTEX-POLCOOP in

Poland or additional markings may be used to indicate that the goods

were purchased and not donated.

# FOUR - PRICE.

A. <u>Butter</u>. The purchase price of the butter shall be U.S. <u>\$1,575</u> per metric ton F.O.B. vessel stowed at the Fort of Philadelphia,

Pennsylvania, or the Port of Camden, New Jersey, or the Port of New Orleans, Louisiana, or the Port of Savannah, Georgia, at CCC's option, or if mutually agreed, the Great Lakes Ports or any other U.S. ports.

- B. Nonfat Dry Milk. The purchase price of the nonfat dry milk shall be U.S. 5770 per metric ton F.O.B. vessel atowed East Coast or Gulf ports, at CCC's option, or if mutually agreed, the Great Lakes Ports or any other U.S. ports.
- C. Cheese. The purchase price of the cheese shall be U.S. <u>\$1,025</u> per metric ton P.O.B. vessel stowed at the Port of Philadelphia, Pennsylvania, or the Port of Camden, New Jersey, or the Port of New Orleans, Louisians, or the Port of Savannah, Georgia, at CCC's option, or if mutually agreed, the Great Lakes Ports or any other U.S. ports.

# FIVE - PAYMENT

- A. Payment for butter, nonfat dry milk, and cheese delivered under this contract shall be made by HORTEX-POLCOOP upon the presentation by CCC to the Bank Handlowy w Warszawie S.A., Chalubinskiego 8,00-950 Warszawa of the following documents approved by HORTEX-POLCOOP:
  - 2 copies and 3 originals of clean On Board Bills of Lading (evidencing refrigerated storage for the butter and cheese)
  - Invoice with specification of goods included (5 copies)
  - Grading certificates issued by the United States Department of Agriculture
  - For cheese and butter, a list of cartons (covered by grading certificates) that were not loaded on the ship scheduled to lift the cargo, showing the total net weight of the cartons.
  - Certificate issued by the Agricultural Marketing Service, USDA,

- indicating c dities are fit for human cons. ion (one copy)

   CCC declaration stating that the original certification that the
  commodities are fit for human consumption has been sent with the goods.
- B. Payment shall be made in Polish zlotys to the interest bearing account, established by the United States Government at Narodowy Bank Polski for the purpose of implementing of this contract, not later than 10 working days after receipt by Bank Randlowy w Warszawie, S. A., of the documents identified in paragraph A above in good order. The U.S. embassy in Poland will be informed when payment is made to the above account.
- C. Payment shall be made at the official exchange rate for U.S. dollars published by Narodowy Bank Polski and in effect at the time CCC presents to the Bank Randlovy Warszawie S.A. the documents identified in paragraph A above.
- D. The amount of zlotys deposited in the interest bearing account established for CCC at Narodowy Bank Polski shall accrue interest at the rate which applies to the accounts held by the public on day-to-day withdrawal accounts, but at not less than three percent per annum.

# SIX - DELIVERY.

- A. CCC shall deliver the commodities to HORTEX-POLCOOP F.O.B. vessel stowed in accordance with Article Pour of this contract. All shipments should be completed on or before August 31, 1982.
- B. At least 30 days prior to the final date that CCC is to have a quantity of a commodity at port, CCC will notify HORTEX-POLCOOP of the acceptable coastal range(s) for delivery and HORTEX-POLCOOP or its forwarding agent, Amerpol International, Inc., will furnish CCC with a notice to deliver listing the estimated time of arrival of

vessel, port, and quantity scheduled to be lifted. Precise date of arrival and vessel name must be furnished by HORTEX-POLCOOP, or its forwarding agent at least 10 days prior to loading. Notice shall be sent to the Agricultural Stabilization and Conservation Service (ASCS), Kansas City Commodity Office (KCCO), P. O. Box 8510, Kansas City, Missouri 64114, (telex 434126).

C. If the vessel fails to lift all or a part of the shipment as scheduled, HORTEX-POLCOOP shall be responsible for all expenses and losses resulting from such failure including, but not limited to, pier or warehouse storage, rail, truck and/or barge demurrage, inspection and deterioration. If CCC fails to timely deliver all or part of the quantity scheduled to be lifted, CCC shall be responsible for all expenses resulting from such failure including, but not limited to, dead freight or demurrage.

#### SEVEN - GENERAL TERMS.

- A. HORTEX-POLCOOP warrants that the commodities delivered under this contract shall be exported to Poland for consumption only in Poland and for distribution there only to preschool children. If any of the commodities sold under this contract are determined by Polish health officials to be unsuitable for distribution for preschool children, such commodities may be distributed in Poland through other programs of the Polish Ministry of Health and Social Welfare.
- B. The butter, nonfat dry milk, and cheese delivered under this contract shall be suitable for human consumption.

# BIGHT - CONTINGENT FEES.

MORTEX-POLCOOP warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding

standing for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by BORTEX-POLCOOP for the purpose of securing business. For breach or violation of this warranty, CCC shall have the right to annul the contract without liability or in its discretion to add to the contract price, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

# NINE - OFFICIALS NOT TO BENEFIT.

No member or delegate of the Congress of the United States of America or resident commissioners will have any participation in this contract, nor any profit which may be derived therefrom, except in the case where the contract is made with a corporation with which such person may be connected and which may profit in general.

# TEN - ARBITRATION.

- A. If nonfat dry milk, butter, or cheese is unfit for human consumption or does not conform with quality standards as specified in this contract, CCC will be notified by telex within 45 days after the date of the on-board ocean bill of lading issued for shipment of the commodity in question, stating reasons as to why the cheese, butter or nonfat dry milk was not fit for human consumption or did not meet quality standards when delivered. Such determinations will not be cause for delay in making payment to CCC.
- B. All disputes, controversies, or differences which may arise between the parties out of or in relation to or in connection with this contract, or the breach thereof, except as provided in Article Two, subparagraph A. 4. hereof (butterfat discount), shall be settled by arbitration. In case arbitration is sought against HORTEX-POLCOOP,

arbitration shall take place in Poland under the Rules of the Court of Arbitration at the Polish Chamber of Foreign Trade in Warsaw. In case arbitration is sought against CCC, arbitration shall take place in the United States in the City of New York, State of New York, under the Commercial Arbitration Rules of the American Arbitration Association.

- -CT The number of arbitrators shall be three, including an arbitratorchairman of the tribunal who shall be neither American nor Polish.
- D. The language to be used in the arbitral proceeding shall be English.
- E. The arbitral award shall be final and the parties agree to execute it voluntarily and without delay. Further, the parties agree that:
  - (1) If the arbitration takes place in the United States, a judgment by the United States District Court for the District of Columbia may be entered on the award made.
  - (2) If the arbitration takes place in Poland, the award will be enforced as specified in paragraph 32 of the Rules of the Court of Arbitration at the Polish Chamber of Foreign Trade.

# ELEVEN - REPRESENTATIVES OF THE CONTRACTING PARTIES.

The following representatives of the contracting parties will have suthority to make the necessary decisions in any instance requiring mutual agreement with respect to the terms of this contract:

FOR CCC: The General Sales Manager, FAS, and Vice President, CCC.

FOR HORTEX-POLCOOP: The Deputy Director, Bureau of BORTEX-POLCOOP.

# TWELVE - OFFICIAL ADDRESSES.

The parties hereby establish, for purposes of this contract, their addresses as follows:

- A. Commodity Credit Corporation, United States Department of Agriculture, 14th Street and Independence Avenue, S.W., Washington, D.C. 20250.
- B. HORTEX-POLCOOP, Foreign Trade Enterprise, Central Union of the Agricultural Co-operatives "Samopomoc Chlopska", Warszawa, Kopernika 30, Poland.

IN WITNESS WHEREOF, this Agreement has been executed by and on behalf of CCC and HORTEX-POLCOOP by their respective duly authorized officers.

COMMODITY CREDIT CORPORATION

HORTEX-POLCOOP

Alan T. Tracy

Title:

General Sales Manager and Vice President, Commodity Credit Corporation Title: Deputy Director,

BORTEX-POLCOOP

Januar Plorczak

Date: 8 / 1981.

Date: Och. 28 / , 1981.

Mr. Bruce Stuart New Zealand Milk Products, Inc. 6300 River Food Rosenont, Illinois 60018

Dear Bruce:

I know you must be swarped with inquiries and requests from shipping and handling firms and others regarding the Journ's recent agreement to buy sumplus CCC butter. I do not wish to add to your burien in this area, but I am obliged to put in writing a matter we have already discussed over the talephone.

Ramors in the trade suggest that the New Zealand Dairy Beard will be using a shipping line, caused by Australian-New Zealand interests, to move a portion of the nutter purchased to New Zealand for processing. Since this shipping line is engaged in bringing Oceanic meat to the United States and its snips are returning virtually capty, it is alleged that they will be willing or have already agreed to take the butter to New Zealand for \$40 to \$60 per ten, rather than the nutually estimated \$160 per ten rate we used in negotiating the contract. Is I resticated over the telephone, it would be highly exharmasing to us if a discrepancy of that magnitude actually did naturalized. We would no doubt be obliged to try to renegotiate the selling price upward.

As you have suggested, these runners may contain restly a lot of wishful thinking. Nevertheless, they are getting a lot of mileage currently.

I think the whole matter can be put to rest if the Board seeks to give . American-flag carriers at least equal access to this business.

Your continuing cooperation and understanding in these matters is greatly appreciated.

Sinorely,

Bryant H. Wadsworth

Assistant to the Director

Dairy, Livestock and Poultry Division

oc: Bladsworth

FAS/DL&P/Edacsworth/vcr/X73031/3/18/31

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P:25/15



NEW ZEALAND EMBASSY 37 OBSERVATORY CIRCLE, NW, WASHINGTON, D.C. 20008

> Phone. (202) 328-4800 Telex 89526

20 November 1981

Dear Carol,

Regards.

Yours sincerely,

N.R. Mitchell Second Secretary (Commercial)

Encls.

Ms. Carol Harvey,
Deputy Director,
Dairy, Livestock and Poultry Division,
USDA: FAS,
Room 6616, South Building,
Washington, D.C. 20250.

# U.S. BUTTER SALE : SHIPPING

- 1. The question of use of USA shipping was not examined in detail during the negotiations. It was made plain that the Board's offer was based on its negotiating freight (inter alia) competitively. (At the same time, NZDB was conscious that a USA carrier would be in a position to participate in the USA to NZ carriage.)
- 2. Unless there were a provision on the USA side which would ensure that USA carriers would always be fully competitive with any other offer as to service and cost, it would clearly follow that insistence in the contract on USA shipping would have required a lower offer price. The removal of competition on freight would have substantially affected the commercial balance possibly putting the whole transaction in question. This being a hypothetical question, it is not now practicable to place a figure on it.
- 3. USA carriers have throughout had the same opportunity as others to compete for the business.

# [Whereupon at 4:15 p.m., the committee adjourned.]

APPENDIE A

# NEW COURS O DAINY BOARD PAST AND PROPOSED BUILDS

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# OCEAN RANGER COLLAPSE

# TUESDAY, MARCH 9, 1982

House of Representatives. COMMITTEE ON MERCHANT MARINE AND FISHERIES. Washington, D.C.

The committee met, pursuant to notice, at 10:07 a.m., in room 1334, Longworth House Office Building, Hon. Walter B. Jones (chairman of the committee) presiding.

Present: Representatives Jones, Biaggi, Breaux, Studds, Bonker, Oberstar, Tauzin, Patman, Hertel, Dyson, Snyder, Forsythe, Lent,

Emery, Evans, Shumway, Carney, and Shaw.
Staff present: Edmund Welch, Mike Toohey, Barbara Cavas, Molly Dominick, Wayne Smith, Tim Smith, Bud Drago, Duncan Smith, Gene Gleason, John Cullather, Chris Goebel, Cher Brooks, and Greg Lambert.

Mr. Jones. The committee will be in order, please.

Three weeks ago, the mobile offshore drilling unit, Ocean Ranger, collapsed in the Atlantic Ocean off the Newfoundland coast with the loss of lives of all 84 of its crew members. This tragedy will be the subject of many investigations in the months to come.

Our committee has traditionally shown keen interest in the safety of life at sea and in safety on oil and gas rigs on the Outer Continental Shelf. It has frequently held investigations and hearings on prior disasters. The sinking of the S.S. Poet and the collapse of the Ranger One drilling rig in the Gulf of Mexico are recent examples of such hearings.

Questions arising from the collapse of the Ocean Ranger are many. Obviously, it will take skilled investigators a long time to determine why the accident occurred. No member of this committee would pretend to claim that today's hearings will produce definitive answers to all the questions surrounding the Ocean Ranger

mishap.

Our committee has a great interest in this accident and in implications for policy decisions in the areas under our jurisdiction. The Ocean Ranger was a U.S.-flag vessel and thus had to comply with licensing and safety laws traditionally overseen by our committee. The U.S. Coast Guard had the responsibility of making safety inspections on the Ocean Ranger, and that service will be a major player in the coming investigations of the accident.

Of course, we are the authorizing committee for the Coast Guard, and our committee has jurisdiction over oil and gas developments on the Outer Continental Shelf. Thus, we are concerned by how this accident might affect future OCS development, particularly in hazardous areas such as offshore Alaska.

And, finally, negligence suits are being filed in the U.S. Federal courts by families of those aboard the Ocean Ranger. The statute giving them that right is the Jones Act, and proposed legislation before our committee would modify that law.

Shortly after the accident occurred, several members of the committee, particularly my colleague, Congressman John Breaux, expressed an interest in scheduling an early hearing on the subject. Today's witnesses were picked to inform the committee on what facts are known about the accident and what questions remain un-

answered pending investigation.

Our panel of witnesses representing the offshore drilling industry includes persons from Ocean Drilling and Exploration Co., ODECO, the company which owned and operated the Ocean Ranger. I hope that these witnesses can discuss what their companies know about the storm and accident and can also inform the committee about standard company safety procedures and training for OCS operations.

Our naval architect witnesses should give us insight into the design of semisubmersible drilling units. Our next panel will discuss how and by whom offshore drilling units are inspected for safety. Weather service witnesses can describe what weather infor-

mation is available to OCS users.

Finally, our committee does not sit today to accuse anyone or to point fingers of blame. We have a tragedy which everyone mourns and which no one willfully caused. This accident raises many questions which responsible parties, including this committee, must examine. Are drilling rigs properly designed and constructed to withstand the treacherous weather conditions on the high seas? Are the rigs operated with due care? Do companies properly stress safety training and awareness upon their crew members? Are safety inspections by government and private entities adequate? And does our Nation's push to exploit the high risk areas of our Outer Continental Shelf to meet our country's energy needs mean that we will have increasing fatalities and future losses like those of the Ocean Ranger?

Those, ladies and gentlemen, are some of the questions the an-

swers to which the committee is seeking.

I now yield to the gentleman from Kentucky, the ranking minority member, Mr. Snyder.

Mr. Snyder. Thank you, Mr. Chairman.

Mr. Chairman, I want to commend you for calling these hearings on the sinking of the Ocean Ranger offshore drilling unit off the coast of Newfoundland.

As you have stated, Mr. Chairman, no one should think that we expect today to answer the question of why this tragedy occurred. I suspect that would be premature. The Coast Guard often takes as much as 2 years to come to a conclusion on a tragedy of this magnitude.

I do not feel that we should wait 2 years before we conduct our hearing. I think it is entirely appropriate to begin today to take

testimony to get an initial briefing on this event.

Unfortunately, when this committee holds a hearing on offshore safety, it usually involves the safety of the maritime and coastal environment. Because of this, there is a tendency to forget the human element until an accident of the magnitude of the Ocean Ranger occurs. Fortunately, there are very few accidents of this nature in size on the OCS. There have been no accidents even approaching the scope of the Ocean Ranger incident in U.S. waters. However, this incident might as well have been in U.S. waters, since 15 of the 84 missing or dead are American citizens.

For this reason, these hearings are of particular interest to me,

For this reason, these hearings are of particular interest to me, because 1 of those 15 Americans, Mr. William Smith, was a constituent of mine having his place of residence listed as Valley Sta-

tion, Ky.

Unfortunately, Mr. Chairman, it appears that you are correct, and we will not accomplish the main purpose of these hearings today; that is to find out the cause of the accident. This does not mean, however, that we should not, nor that I will not, pursue the clarification of the events and rumors that surround the tragedy.

There are numerous questions concerning the role of the U.S. Coast Guard, the U.S. Geological Survey, the American Bureau of Shipping, and the companies themselves as to their safety require-

ments, inspections, and procedures.

In addition, questions have arisen concerning evacuation procedures, the relative practicability of lifeboats and escape modules in use under the very conditions for which they were intended to be used. We should remember that working on the Outer Continental Shelf is not the safest of occupations, but neither is it the most hazardous. As a matter of fact, the personal injury rate over the past 10 years has decreased by just over 20 percent, while the exposure to potential for accidents, that is the total man-hours worked, has increased by over 150 percent.

It appears to me that not only must we endeavor to find out what happened, how, and why, but if there is any common denominator between the Ocean Ranger incident and incidents involving the loss of other semisubmersible drilling units. This is particularly pertinent in light of the fact that two other semisubmersibles, much smaller than the Ocean Ranger, survived the same storm. I think it is particularly interesting, too, that the Ocean Ranger was foreign built, whereas the Zapata "Ugland" was built by Bethlehem in Texas, and the SEDCO "706" was built by Kaiser in California, and therefore are both American built.

Mr. Chairman, I commend you again for having the hearing. This concludes my statement. I look forward to hearing from our

other witnesses.

Mr. Chairman, I ask unanimous consent that all members be permitted to insert their statements at this point. I have one for Mr. Young.

Mr. JONES. Is there any objection? If not, so ordered.

[Material referred to follows:]

STATEMENT BY HON. DON YOUNG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ALASKA

Mr. Chairman, you are to be commended for beginning this prompt inquiry into the Ocean Ranger incident. This will no doubt be a large part of our education into

the operation of drilling units under severe and harsh conditions. Further, it affords us the opportunity to review those areas of OCS and merchant marine safety over

which this Committee has jurisdiction.

As the Ranking Minority Member of the Coast Guard and Navigation Subcommittee, a member of the OCS Subcommittee, and Congressman for all Alaska, I take a deep and serious interest in this matter. Offshore oil and gas plays a large role in the energy needs of this country. Therefore, regardless of the individual interest that each of us has, all Americans must be concerned about operations on our OCS.

Mr. Chairman, the tragedy of this incident with loss of life is great. It will take a long time to uncover and fully understand this incident. I look forward to patiently working with you and the other Members of our Committee to achieve this knowl-

edge and make improvements where necessary.

#### STATEMENT OF HON. JOHN B. BREAUX, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF LOUISIANA

Mr. Chairman, I want to express my appreciation for your willingness to hold this hearing so that we might begin to explore the circumstances and possible causes of the unfortunate sinking of the semi-submersible Ocean Ranger. On the day after this disaster, when I first requested you to hold this hearing, I was puzzled as to how this rig, reportedly capable of withstanding much harsher weather conditions then those encountered during the accident, could capsize in the first instance. I was also deeply troubled as to why there was not one survivor. My concerns have not been abated by the conflicting press reports emanating out of Canada and Washington regarding the severity of the storm, the condition of the rig, the status of its inspection history, among other potential contributing causes.

I would hope that this hearing will serve to straighten out the facts that are

known at this time from rumors and speculation and establish a benchmark from which this Committee can judge the eventual outcome of the official investigation. For example, we need to know the inspection requirements, the precautions taken to prepare these rigs for an oncoming storm and the parameters of our weather forecasting capabilities and how that is transmitted to the rig. We need to examine what actions are taken as a result of government policy and how industry compliments those policies with the voluntary adoption of safety procedures.

Based on my preliminary investigations, I am very concerned about the lapse in the Certificate of Inspection aboard the Ocean Ranger. I am surprised that a multi-

million dollar ocean drilling operation can allow a certificate as important as this to expire and not request another inspection for almost two months after the termination date. I am also baffled to learn that the U.S. Coast Guard does not routinely monitor the expiration of these Certificates of Inspection and require the rig's owner to do something about it. This will be a critical line of questioning for me

It is only from this factual data base that the Committee will have the ability to make a final judgment about the adequacy of existing laws and regulations. Of course, since this accident occurred only three weeks ago, the final report of the Coast Guard will be some time in coming. However, I hope that we will be able to get periodic reports from the Coast Guard and other agencies during the course of

their investigation.

It is the responsibility of this Committee to oversee the safety of operations conducted pursuant to the Outer Continental Shelf Lands Act. One of the main purposes of today's hearing is to determine if these laws and the regulations promulgated pursuant to them are sufficient to protect the safety of U.S. citizens aboard offshore oil rigs and vessels.

# STATEMENT OF HON. NORMAN F. LENT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

I want to commend the distinguished Chairman of this Committee, Mr. Jones of North Carolina, for scheduling this hearing on the loss of the Ocean Ranger, the

largest semi-submersible drilling rig in the world.

As Ranking Minority Member of the Panama Canal/OCS Subcommittee, I am fully aware that we need to proceed with our offshore energy program. But we need to ensure that the program is carried out in a safe and environmentally sound manner.

Thus, the Ocean Ranger tragedy raises many questions needing answers. Testing under extreme wind and wave conditions has indicated semi-submersible units have excellent stability in severe weather. Yet the Ocean Ranger, designed to withstand winds of 115 knots, waves of 110 feet, and a 3 knot current simultaneously, failed to weather a storm which two other similar units in the area survived, apparently without sustaining damage. The vessel reportedly was equipped with four lifeboats to accommodate twice the number of men aboard, yet with at least one-half hour to evacuate, none of the men survived. Fortunately there is no evidence of pollution as a result of this accident, but would that be the case if production had been taking place on board?

It is possible that we might never find out exactly what caused the capsize and

loss of the Ocean Ranger, or why none of her men survived the storm.

But today's hearing can help us thresh out the facts about what happened to the Ocean Ranger 175 mile miles off Newfoundland in the North Atlantic on February 15, 1982. Hopefully it will also lead us to some answers as to if and how such a tragedy can be prevented in the future.

Mr. JONES. The Chair announces that we will invoke and enforce, as much as possible, the 5-minute rule. With that in mind, I

recognize Mr. Biaggi for 5 minutes.

Mr. BIAGGI. Mr. Chairman, I will not take the 5 minutes, but I would like to take this opportunity to commend you for holding the hearings as quickly as you are to keep the committee more current as to what is occurring and to learn as much as we can, because this committee has an obligation not simply to those killed on the Ranger but to all of the maritime industry and individuals who are

engaged in this hazardous activity.

I am just looking at a newspaper clipping of today in the Washington Post which kind of raises a question and also makes us consider what Mr. Snyder said, concerning two smaller rigs which survived the storm. The latest report from St. Johns, Newfoundland, is that the radio logs seized by the Royal Canadian Mounted Police indicate that the towering waves smashed a porthole of a ballast control room on the Ocean Ranger, gradually cutting power and possibly causing the oil rig's sinking on the 15th.

I don't know if that information has been available or it is newly revealed, but in any event, there is something extraordinary about

that tragedy.

Mr. Jones. The Chair recognizes Mr. Forsythe for 5 minutes.

Mr. Forsythe. Thank you, Mr. Chairman, and I will not use the 5 minutes.

I again want to commend you for your movement in this area. I think it is entirely proper that we try to keep current as we seek to find the full answers, as Mr. Snyder has pointed out. I commend him on his statement and would ask unanimous consent that my full statement be included in the record.

Mr. Jones. Without objection, it is so ordered.

[Material to be supplied follows:]

STATEMENT BY HON. EDWIN B. FORSYTHE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Today, we are holding hearing on the loss of the Ocean Ranger semi-submersible MODU, which sank in a storm 175 miles off the coast of Newfoundland, Canada in

the early morning hours of February 15th. This is the second largest loss of life in the history of the worldwide OCS. The Alexander L. Kielland capsized in the North Sea, killing 123 people, 39 more than the 84 lost on the Ocean Ranger.

I commend my Ranking Minority Member on his statement, and share his frustration that we apparently will not find the answer to the accident in today's proceedings. Since this appears to be "one of a kind accident", there does not appear to be any standardization that can be applied as pertains to safety unless it involves

the inspection schedule and techniques.

As you know, a great deal of time, effort and attention was given to safety during the four years Public Law 95-372 (the 1978 OCSLA amendments) was considered by Congress. There is no way we can . . . provide a cocoon for everyone guranteeing that they will be safe from all hazards. However, in the pursuit of commerce, the government has a responsibility to our citizens to attempt to provide a safe and

healthy environment within which they can work.

Sections 21 and 22 P.L. 95-372 were designed to do just that, and I hope, since the

Coast Guard and the Department of the Interior are the lead agencies under the Act, and are appearing here today, that we can look into the relative safety responsibilities, and how they are or are not applicable to this accident. I think it is interesting and relevant to the purpose of these hearings that with the exception of the first three sentences, my statement at this point is a direct quote from the statement I made during the hearings by the Select Committee on the OCS on the Ranger I jackup rig accident in 1979. The tragedy we are considering today appears to be unique in that two smaller semi-submersibles survived the same adverse conditions that apparently spelled the demise of the Ocean Ranger, as well as a Russian vessel. This raises the question of what exactly were the weather conditions experienced by the Ocean Ranger and the Russian vessel, and did the two smaller and more vulnerable MODU's experience the same conditions?

Other questions concern the timeliness of ODECO in reporting to the Coast Guard for the biannual inspection of the Ocean Ranger, which appears to have been due for inspection on December 27 of last year. However, due to a split inspection, one on the deck and a later inspection on the hull, perhaps the rig is not due for inspection for another four or five months. The real question is, whether a timely inspec-

tion could have prevented the accident.

Other questions that should be answered concern the evacuation procedures, how they vary from company to company, the degree to which drills are conducted, and any federal regulations that may be applicable to this situation.

Mr. Chairman, there are many other questions I am sure we will pursue during

this hearing and I look forward to hearing from our witnesses. Thank you.

Mr. Jones. The Chair now recognizes Mr. Breaux.

Mr. Breaux. Thank you very much, Mr. Chairman. I, too, join the other members in expressing my appreciation for your willingness to honor the request that we made to have these hearings.

It is certainly a very tragic event that we all are very sorrowful about. I had citizens from south Louisiana who were working on

the rig and lost their lives.

I think that this committee has a very legitimate reason for acting now. This committee is charged with the jurisdiction of overseeing activities on the Outer Continental Shelf, is charged with overseeing the activities of the Coast Guard with regard to inspection and certification procedures; is charged with the duty of writing the rules and the legislation regarding OCS leasing activities, and, particularly, this committee has been charged with the responsibility of legislating in the area of safety with regard to OCS lands activity. Clearly, the SEL committees actions today are in no way premature.

The record of industry operating on the Outer Continental Shelf around the world is an excellent record; no one can deny that. It is a record that we can be all very justly proud of. Unfortunately, the best rules that Congress or anyone can write sometimes are simply not enough. We have rules that say ships should not sink and planes should not crash but, unfortunately, those things do occur.

What is important for this committee to do now is to look into the rules and regulations that this committee has written and try to determine whether those rules and regulations, with regard to safety and the practices in the OCS, are adequate. We further need to determine whether the rules and regulations that are in existence are, in fact, being followed. It is not the purpose of these hearings or the intent of this committee to determine the cause of this accident at this time. But I feel that it is encumbent upon this committee to look at those rules and regulations and to make a deter-

mination as to the adequacy of such.

My own preliminary investigation has indicated that it is possible for vessels to operate on the OCS without a valid certificate of inspection by the U.S. Coast Guard. I feel that is very puzzling at best. Clearly this committee needs to explore why such activity is permitted by our U.S. Coast Guard. It may be a defect in a law that this committee has written, and if so, it is certainly incumbent upon this committee to look into it.

Our initial questions to the Coast Guard have not produced a reasonable response concerning the number of other vessels and rigs that the Coast Guard has jurisdiction over that are presently operating without a valid certificate of inspection. This lack of knowledge in our Government is absolutely unacceptable. Perhaps it is through no fault of their own, but this committee needs to re-

solve this situation.

Thank you, Mr. Chairman. Mr. Jones. The Chair recognizes Mr. Lent for 5 minutes.

Mr. Lent. Thank you, Mr. Chairman. I want to, first of all, commend you for scheduling this hearing on the loss of the Ocean Ranger, the largest semisubmersible drill-

ing rig in the world.

As the ranking minority member of the Panama Canal Outer Continental Shelf Subcommittee, I am fully aware that we need to proceed with our offshore energy program, but we need to insure that the program is carried out in a safe and environmentally sound manner.

Thus, the Ocean Ranger tragedy raises many questions needing answers. Testing under extreme wind and wave conditions has indicated that semisubmersible units have excellent stability in severe weather. Yet the Ocean Ranger, designed to withstand winds of 115 knots, waves of 110 feet, and a 3-knot current simultaneously, failed to weather a storm which two other similar units in the vicinity survived, apparently without sustaining any damage.

The vessel reportedly was equipped with four lifeboats to accommodate twice the number of men aboard. Yet, with at least one-

half hour to evacuate, none of the men survived.

Fortunately, there is no evidence of pollution as a result of that accident, but what would be the case if production had been taking

place onboard?

It is possible that we might never find out exactly what caused the capsize and loss of the Ocean Ranger or why none of her men survived in the storm. But today's hearing can help us thresh out the facts about what happened to the Ocean Ranger 175 miles off Newfoundland in the North Atlantic on February 15, 1982.

Hopefully, it will also lead us to some answers as to if and how

such a tragedy can be prevented in the future.

Thank you, Mr. Chairman.

Mr. Jones. The Chair recognizes Mr. Studds.

Mr. Studds. Mr. Chairman, I do not have a formal statement.

I want to second, for the first time, almost everything the gentleman from Louisiana has said. The questions which we as human beings would most like to have answered are not going to be formally or finally answered, nor can they be, nor should they be, in this forum; namely, why did a rig that was supposed to be able to survive those conditions not survive them, and why were the emer-

gency procedures so tragically unsuccessful?

There are, it seems to me, questions that this committee can legitimately ask at this time. Speaking as one from New England, perhaps the constituency closest to this particular tragedy and one of the areas where the oil industry plans most imminently to expand, as this committee well knows, its operations in the Northwest Atlantic, we have just been given a very cruel example of what we have been saying for many years in this room; namely, that the Northwest Atlantic is not the Gulf of Mexico. The conditions are dramatically different there.

With expansion of this industry scheduled primarily there, in the Northwest Atlantic, and in the polar regions of Alaska, it seems to me that the questions posed by this tragedy are urgent, and urgent indeed. We have received time and again in this room assurances from the industry that the challenge is not too great, and we are increasingly hearing assurances from the Government that the industry knows what is best, and we have heard increasingly in recent days arguments that the Government is hamstringing industry in general and overregulating industry, and we also know that the Coast Guard itself is being somewhat hamstrung by increasingly deep cuts in its budget which affect its capability to carry out all of its missions.

I do not mean to suggest other than what the gentleman from Lousiana has already said, that to date, historically, it seems to me the record of the oil industry is a superb one in terms of technological proficiency and in terms of safety. But they are moving into more hazardous waters, into deeper waters in which we have little or no experience. These kinds of questions are going to arise again and again, and this provides us, I think, with an opportunity to assess, with that dose of humility which I think it behooves us to have when approaching new frontiers in the ocean, what we are capable of doing and what we may not yet be capable of doing.

I thank the chairman for scheduling the hearing at this time.

Mr. Jones. Thank you, Mr. Studds. Mr. Shumway?

Mr. Shumway. Thank you, Mr. Chairman.

I would like to add my voice to those who have expressed appreciation to the Chair for scheduling this hearing. It certainly is

timely and appropriate.

I believe, Mr. Chairman, whether we are successful in defining the cause or simply see the way for perhaps a legislative remedy to apply in this situation, this hearing is appropriate because this tragedy certainly has national implications. Not only were many of the crew which was lost U.S. citizens, but American technology and American maritime procedures are also involved.

It therefore seems to me, Mr. Chairman, a national tragedy, and I hope that within the limits of mortal minds we can find ways to

avoid another such loss.

Thank you, Mr. Chairman.

Mr. Jones. Thank you, Mr. Shumway.

Our first three witnesses today are representing the industry panel, and they are Mr. Sexton, Mr. McIntosh, and Mr. Kelly. Would you three gentlemen come to the witness table, please, at this time.

The Chair now recognizes Mr. Hugh J. Kelly, the president and chief executive officer of Ocean Drilling & Exploration Co. Mr.

Kelly?

STATEMENTS OF HUGH J. KELLY, PRESIDENT AND CHIEF EX-ECUTIVE OFFICER, OCEAN DRILLING & EXPLORATION CO.; THOMAS S. McINTOSH, PRESIDENT, ZAPATA OFF-SHORE CO.; AND R. WARREN SEXTON, VICE PRESIDENT, DRILLING DIVI-SION, SEDCO, INC.

# STATEMENT OF MR. KELLY

Mr. Kelly. My name is Hugh Kelly. I am president of Ocean Drilling & Exploration Co., the owner of the Ocean Ranger.

At my left is Tom McIntosh, who is president of Zapata, Inc., the operating arm that operates the rigs for Zapata; to his left is Warren Sexton of SEDCO. He is the vice president. These were the

three rigs that were there and operated off Canada.

While we appreciate the committee's concern and interest in examining all aspects of the Ocean Ranger loss, as a company, and individually, we find it difficult to be dispassionate and analytical in the face of such a huge calamity involving the tragic loss of 84 men, many of whom were long-time friends or relatives of those within our organization. I have two dear friends whose son was lost in Ranger. He is a long-time ODECO employee; in fact, he managed the Ranger for 3 years in Alaska. So our loss is intensely personal, and our organization feels it.

Most of what we have been doing in the last 3 weeks has been directed to helping the families of the men who were lost—the

processing of claims, attending funerals, memorial services.

We also feel strongly that a hearing on the Ocean Ranger on this date is premature if it is intended in any real way to inquire into the causes of the sinking of the Ocean Ranger. A detailed investigation certainly will require months of intensive examination of all

evidence and testimony that might be available.

Since February 16, 1982, an informal investigation has been underway in Canada with the cooperative participation of representatives of the Canadian Energy, Mines, and Resource Department, the Newfoundland Petroleum Directorate, the Royal Canadian Mounted-Police, the Canadian Coast Guard, and the U.S. Coast Guard, as well as representatives of Mobil Oil Canada and ODECO.

We understand that this investigation has consisted of the interviewing, on an informal basis, of members of the crewboats and other rigs in the area, off-duty members of the Ocean Ranger crew, radio operators and other shore-based personnel and participants

in the search and rescue efforts.

We are also advised that a Royal Commission of Inquiry has been appointed for the purpose of conducting a joint investigation by the Province of Newfoundland and the Government of Canada and that this Commission will convene, at the earliest, in April of this year. Also, the U.S. Coast Guard Marine Board of Investigation has been convened to investigate the incident. At these formal hearings, interested parties will be represented and will have the opportunity to examine witnesses and all the evidence that might be developed.

Nevertheless, we will attempt to respond as best we can to those questions asked of us by you, although we do so with serious reservations as to the timing and appropriateness of a hearing at this

time.

Now, when we first were apprised of the meeting, we were asked to give you a statement as to the facts at this time that were known about the sinking of the Ranger. That was like last Thursday. Now, as of today, we do know more about it. We have some evidence of it. But, at the outset, I have to point out that I have no direct knowledge of the events surrounding the Ocean Ranger incident.

As chief executive officer of the company, I of course have a vital interest in it, and I have received reports from our people in St. Johns, Newfoundland, who are part of the team composed of representatives of the provincial and federal governments of Canada, the

U.S. Coast Guard, and Mobil Oil.

All of the people who have direct knowledge of these events have been interviewed and are being interviewed by the by the authorities up there, and I have had no direct access to the contents of these interviews, some of which may be going on at the present time.

I know you will be disappointed by the lack of detailed information, but we are just not in a position to provide that information at this date. So what I am going to give you is my best effort in assembling chronology of events surrounding the mishap, but I do so with reservations that the facts as they develop may support or contradict what I say here as well as supply important and rele-

vant details of which we are presently totally unaware.

So I come to you as the head of the company. When this accident happened, I was sound asleep. But I have accumulated these reports. They are hearsay, they are second hand; the people that are giving them are perfectly honest, straightforward fellows that work for us. I come to you to report that as best as I know it, but you have to understand, 3 weeks after a thing like this, really establishing the basic facts requires expert testimony and hearings before formal boards like the U.S. Coast Guard. But, if you will, I will go ahead and give you what I have as best we know it now and try to begin to understand what might have happened that night.

At about 7:30 p.m. on February 14, 1982, our tool pusher radioed his drilling superintendent that because of heavy weather—they had been advised earlier of 55- to 60-knot winds—that preparations were underway to close the blowout preventer and disconnect from the well. This is standard procedure in the event of heavy weather. Its primary purpose is to guard against pollution. Indeed, as you will see later, we have evidence that this was done and there never

was any danger of a pollution incident in this case.

This was the last direct communication from the rig to ODECO shore-based personnel. Now again, I am summing up a lot of testimony from our people as to what happened. But from communications with other rigs and boats in the area, as well as the Mobil

base office, it appears that a porthole in the ballast control room of the Ocean Ranger had been knocked out around 7:30 p.m. and that water entered the control room, causing malfunction of the electrical controls for the ballast system.

By 10 p.m., it was reported that the porthole had been secured and that all was well. We also understand that there was a weather report from the rig called in at midnight to Mobil's shore base

which did not include any indication of problems aboard the rig. At 12:52 a.m., Newfoundland time, on February 15, the radio operator aboard the drilling rig SEDCO 706, which was approximately 9 miles from the position of the Ocean Ranger, reported reception of a Mayday from the Ocean Ranger on frequency 2182, which is the international emergency frequency, in which the Ocean Ranger advised that it had a list and required assistance. The SEDCO operator was requested to continue putting out the Mayday.

The radio operator complied with this request and continued sending the Mayday over the international emergency frequency. This was really the first known communication from the Ranger

which in any way indicated difficulty aboard the rig.

At approximately 1:05 a.m., Newfoundland time, on February 15, the standby boat for the Ocean Ranger, the MV Seaforth Highlander, received a request to come in a little closer because the rig

was listing to port, and all countermeasures were ineffective.

The standby boat had been positioned outside the line of anchor buoys around the Ocean Ranger, which left it 11/2 to 2 miles away. The Seaforth Highlander responded by moving closer to the Ranger, and during that maneuver, her crew overheard the Ocean Ranger request SEDCO 706 to transmit a Mayday and thereafter heard the SEDCO 706 comply.

This was logged at 1:10 a.m., Newfoundland time. It is likely therefore, that the radio communication logged by the SEDCO 706 at 12:52, Newfoundland time, was the same communication logged by the Seaforth Highlander at 1:10 a.m.

At 1 a.m., Mobil's representative aboard the Ranger telephoned

Mobil's on-shore representative and requested an alert, stating that the Ocean Ranger was listed to the bow, 8 to 10 feet, and experiencing winds of 75 to 80 knots. This was the only mention of a list

to the bow. All other reports refer to a port list.

He further reported that they were attempting to isolate the list and had 84 men on board. At 1:12 a.m., Newfoundland time, on February 15, the Ocean Ranger transmitted, by way of COMSAT, the following message: "We are the Ocean Ranger, KRTB," and they gave their coordinates, "and are experiencing a severe list of about 10, dash, 15 degrees, and are in the middle of a severe storm at the time 12 degrees and progressing. Request assistance as soon as possible. We are an offshore drilling platform."

Subsequently, the rig further transmitted: "Winds at this time are approximately from the west at approximately 75 knots. Rig is a semisubmersible and is listing severely, 12 to 15 degrees to the

port side."

At 1:30 a.m., Newfoundland time, the Ocean Ranger reported that men were taking to the lifeboats. This communication was received by both the SEDCO 706 and Mobil's shore-based radio operator. No further radio communications were heard from the Ocean

Ranger following this 1:30 a.m. transmission.

Thereafter, there were air and sea attempts at rescue, and we perhaps can deal with that as we get to your questions. What I am going to try to do from here forward—again, this is second and third hand. These are reports given to me. I have not seen the reports. There is a film that is involved. I have not seen the film. But I think that is what you want me to do. You want me to tell you what I know, and I am going to try to do that, again with the strong reservation that what I tell you can be contradicted later on.

It is not known precisely at what time the Ocean Ranger sank, but based upon the reports from the boats in the area concerning the time the rig was lost from radar observation, it appears that

the rig sank sometime around 3 a.m., Newfoundland time.

We had many weeks of bad weather up there. It has been 3-weeks since the tragedy. It was only in this last week that the diveboat got out there and, using a remote control vehicle, was able to obtain a film of the Ranger. Now, this underwater camera survey was made of the site, and again, I have not viewed the survey. Our representatives in Canada report, however, that the survey is 18 hours in length and of good quality.

From that survey, they advise that the rig is inverted—that is, upside down on the ocean floor—with the structure intact and damage noted to the bow end of the two pontoons, both of which appear to have been mashed topside and bottomside of these pontoons—I will show you a photograph here of the rig—and the glass

from one porthole in the ballast room was gone.

Now, from this preliminary observation, it is our view that no cause has been observed that really accounts for the sinking of the

rig. [Photograph on following page.]

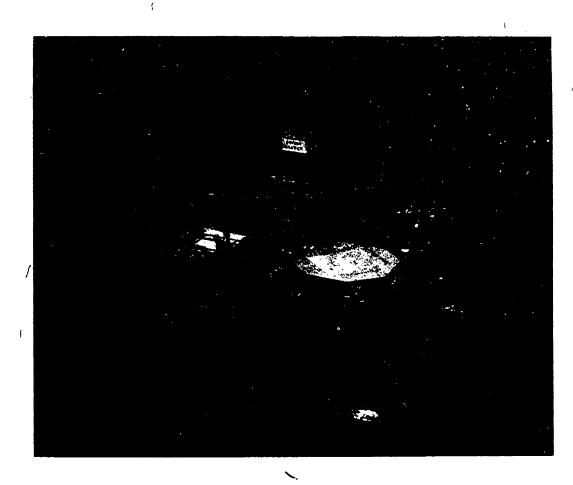
You fellows probably cannot see this. I will pass it up there. This is a photograph of the Ranger when it first came out of the ship-yard, and it is in the transit mode. Below these anchor bolts here, you have a pontoon on either side which is almost 400 feet long. From the base of that pontoon to the top of the deck is about 151 feet. The breadth of the rig is about 242 feet.

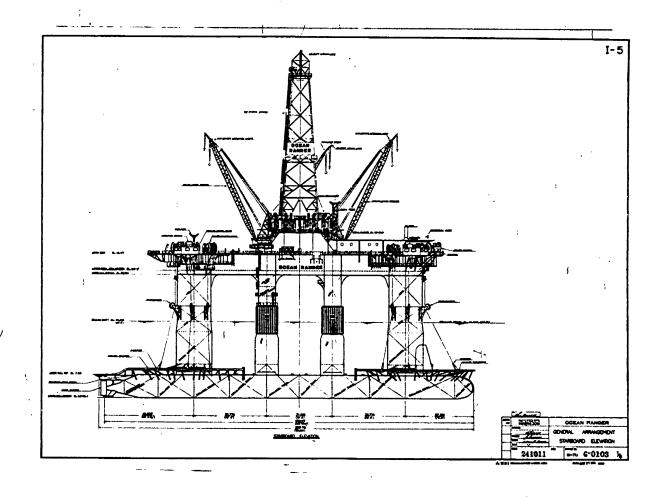
Now, this is in the transit mode. On location, there are 12 moorings at each corner of the rig. The chain involved is  $3\frac{1}{2}$ -inch chain. The anchors weigh 45,000 pounds. Once the rig is moored, anchor handling boats run the anchors. Then the rig is partially submerged. In this case, the operating draft is 80 feet, and that would bring you up about halfway up this column here.

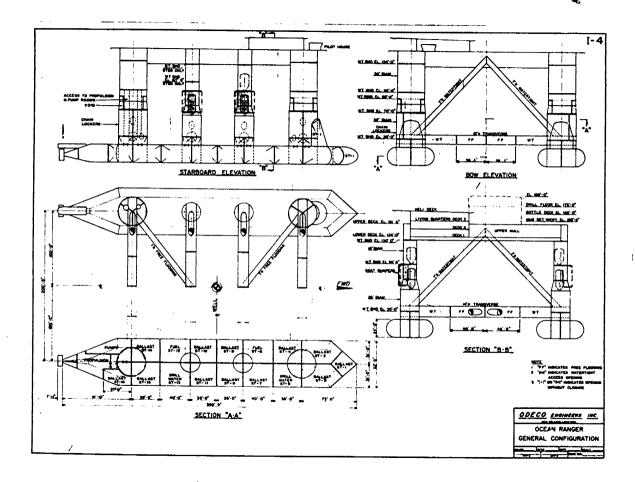
Now, what they observed with the TV survey was that they looked at these columns and found them in place. The transverse horizontal members, critical members in supporting and holding this unit together, were in place. The connections were in place.

What they are saying is that the structural integrity of the rig, even inverted, even after capsizing and taking forces way beyond what it was designed to do, the structure survived intact. That is pretty important to all of us, especially the people who designed and built the rig.

[A picture and diagrams of the rig follow:]







When we use the word "collapse," as I heard the Chairman use, respectfully, I do not think that is the right word. The rig capsized; it did not collapse. The last great disaster we had offshore was the Alexander Kielland, off of Norway. One of these columns separated

from the rig. It did not happen here.

When you ask the question, how can a rig designed to withstand twice the weather that it encountered that night capsize, that begs the question. It can stand it, but there are ways to sink any rig; there were ways to sink the *Titanic*. But it was not structural failure, based on that underwater survey. Now, again, the Coast Guard has that same survey, and they have expert people who can examine it. They can confirm that. But based upon what my people tell me, that did not happen.

So what did happen? What might have happened?

Now, the stability of the Ranger is maintained from the ballast control room. This is located in the third stability column aft, starboard side, on the third deck below the main deck, right here. From this station, the control room operator opens and closes the necessary valves to ballast and deballast the 32 compartments of

the two pontoons which provide buoyancy.

The ballast system operates through a central header leading from a seachest at the pump rooms near the aft end of each pontoon and going forward through the compartments. At each compartment there is a separate butterfly valve controlled by an air-operated activator. Movement of the activator is initiated by pressing one of two buttons on the control panel located on the console in the control room: a red button to close, a green button to open. Also, the pump system is activated in this control room.

Now, we do know—and here, as I say, the evidence gets more fragmentary and more difficult—but we do know that at 7:30 p.m., one of these witnesses—most of this was overheard conversation on the Ranger; it was not transmitted directly. Particularly on the SEDCO rig, their ballast room people and radio people were able to

overhear conversations going on on the Ranger itself.

One of those conversations between 7:30 and 8 p.m. was—and this may not be an exact quote, but I think it is close to it—"We have water and glass down here." Two minutes later: "All of the valves here on port side are opening by themselves. We need EL.

electrician, down here. Shock on the panel."

Two hours later: "Everything cleaned up down here; everything normal." And then, only here recently, one witness who was passing the SEDCO radio room during the Mayday messages at about 1:15 a.m. heard the Mayday message, and he also has testified that during the conversation there was a reference to taking water in the control room. Now, in your time sequence, you had that water incident, 7:30 to 8 p.m.; a report it cleared up by 10; everything is normal until 1; and you begin getting Mayday messages. One of the messages referred back to the ballast room problem. They abandoned from 1:30 a.m., and the rig disappeared from radar at 3 o'clock.

Now, to call that a full chronology is probably expanding on the basis of the facts we have because, again, all of this is going to be looked at by people that understand it a lot more than I do. Nevertheless, when I look at this photograph and this magnificent rig—

this is the porthole we are talking about—it is hard to believe something 18 inches in diameter could begin a chain of circum-

stance that ended in such a calamity.

I have a photograph here, too, which I will pass around to you, of that console. [Photograph on following page.] As you can see, there is a porthole here and a porthole here. Now, above them they have a typical storm hatch which, when the underwater survey was made, all of these hatches were closed. But one of these two, and I wish I could tell you which one—we are not certain; we know it is either this one or this one, the two portholes on either side of the console—one of them went out. It would make sense if it were, I guess, this one on the port side.

I think it is pretty well established that they had some unusual difficulties at that moment. Then that brings on just a flood of questions as to what—have you failsafe systems? The answer to that is yes. Did the men understand that? I think so. But all of this has to be looked at in great detail, and I hope you don't expect us today to anywhere come close to giving you a scenario as to what

might have happened.

These people were all human beings, and God knows what happened that night. It must have been a panic situation where they had some type of malfunctioning, and how they responded to it, we do not know.

I think that closes my description. Thank you.

Mr. Jones. Thank you, Mr. Kelly. I would like to observe that we know this is very unpleasant for you, but contrary to your conviction that nothing can be gained today, I think at least we can stop some rumors that are floating around, many of which are probably untrue. In deference to you and your company, and your sadness at the loss of your friends, I think it only timely that we pursue this at this moment.

Mr. Kelly. Thank you, Mr. Chairman.

Mr. Jones. The Chair now recognizes Mr. Thomas McIntosh, the second witness on the industry panel. Mr. McIntosh?

# STATEMENT OF MR. McINTOSH

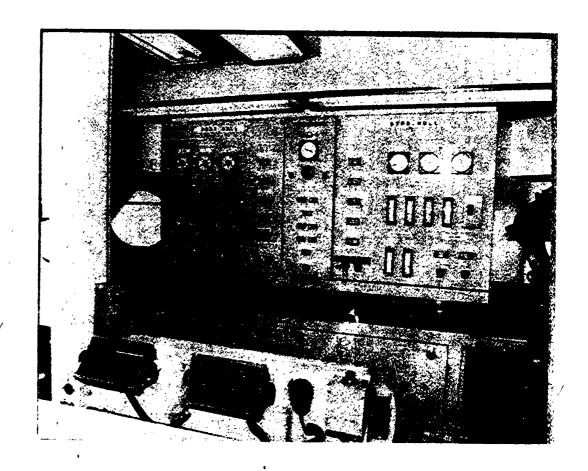
Mr. McIntosh. Thank you, Mr. Chairman, distinguished members of the committee.

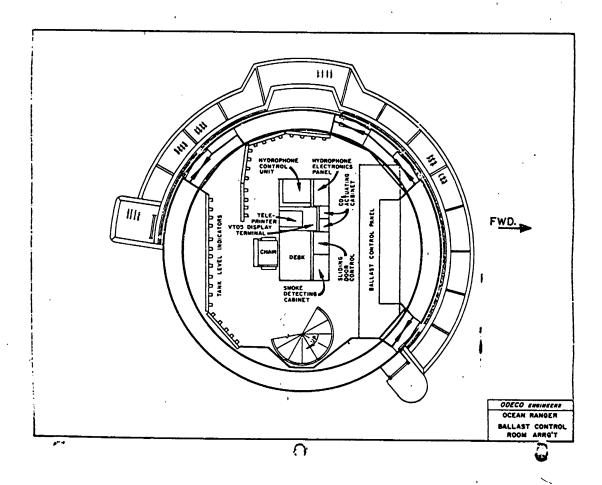
I am Thomas S. McIntosh, president of the Zapata Off-Shore Co. Zapata operates a fleet of 23 offshore drilling rigs. Currently, 12 of these units are in U.S. waters; the other 11 are operating overseas. We have a 24th currently under construction.

The Zapata Ugland is operated by my company and is currently under contract with Mobil Canada, performing exploratory drilling operations off the coast of eastern Canada. We are acting in the

role of an independent contractor to Mobil, our customer.

I thank you today for this opportunity to appear before you to discuss the broad issue of offshore safety as brought into question by the loss of the Ocean Ranger. The Ranger tragedy affects all of us in the industry. The incident touched Zapata and our colleagues at SEDCO closely because we both had rigs working near the Ocean Ranger.





On February 15, the Zapata Ugland was moored approximately 175 miles east of St. Johns, Newfoundland. This location placed us some 19 miles north of the Ocean Ranger and 12½ miles northwest of the SEDCO 706.

Until we have more facts, I cannot speculate on what might have caused the accident. On Saturday, February 13, the Zapata Ugland was performing normal drilling operations. A weather report from NORDCO was received which covered approximately the next 72 hours, through Monday the 15th. The report accurately forecast a build-up in both winds and seas on Sunday the 14th and on into

Monday.

Early Sunday morning, as a result of this weather forecast, preparations to cease normal operations and secure for the rough weather were begun at 0800 hours, as the seas began to build up. By 1700 hours, all preparations had been satisfactorily completed. As a further precaution, and as the weather continued to build, the rig deballasted from its 80-foot drilling draft to a 75-foot draft. This took place without incident.

The storm, here defined simply as "weather too rough for normal operations to continue," lasted approximately 24 hours, from midafternoon Sunday to midafternoon Monday. The well itself, I might add, was routinely closed in and secured. There occurred no flow of

any kind from it.

The Zapata Ugland, like the Ocean Ranger and the SEDCO 706, was built to weather storms more severe than the one that struck February 14. In fact, on January 16, 17, and 18 of this year, all three rigs successfully experienced a storm of possibly greater severity than the one which sank the Ocean Ranger.

To date, inspections are still being carried out aboard the Zapata Ugland, but these inspections have found no damage from either storm. This is not surprising, as the Ugland was designed to with-

stand 100-foot waves and sustain winds of 100 knots.

The design also allows drilling operations to continue during 50-

knot winds and 30-foot significant seas.

The Ugland has spent its entire 8-year career drilling either in the North Sea or off the coast of New England and Canada. Zapata's five-rig semisubmersible fleet has a total of 29 rigyears of experience. We have a sixth semicurrently under construction and destined primarily for severe environment regions. Additionally, we have more than 25 rigyears operating drill ships.

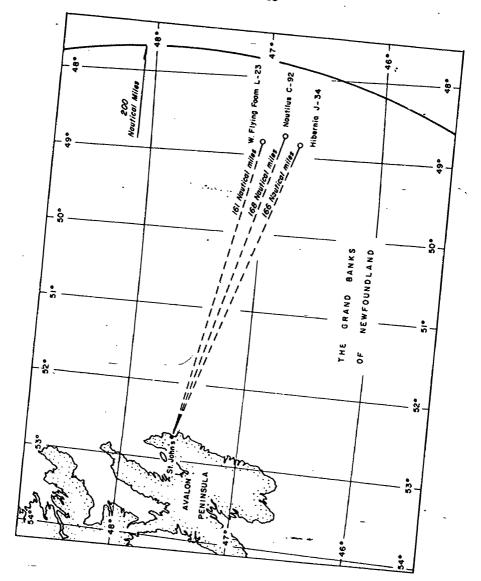
As Mr. Kelly has explained, a semisubmersible is a type of rig that is built with large pontoons which are submerged below the water during normal drilling operations. It is a very stable structure, much more stable, for example, than the typical merchant vessel. In fact, in the nearly 30-year history of our offshore industry, I am aware of only four cases of semisubmersibles capsizing

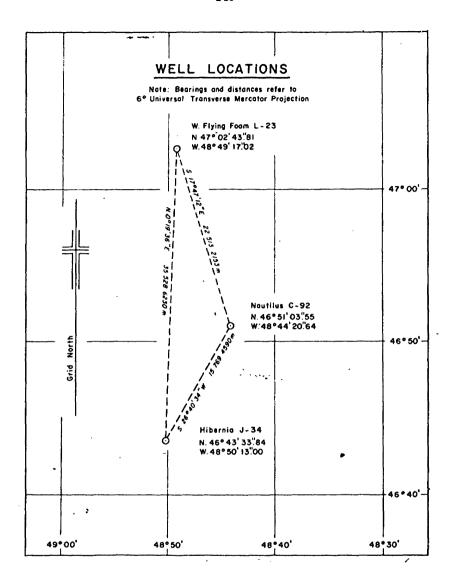
due solely to weather.

One was in a 1964 hurricane. The second was in 1974 in the North Sea. The third was the Alexander Kielland. The fourth was

the Ocean Ranger.

The sinking of the Kielland, which claimed 123 lives, was not, however, a drilling accident. The Alexander Kielland was operating as a "floatel" or a floating hotel, not a drilling rig, thereby causing far more people to be aboard than a regular crew. Many of the men on board were not safety trained.





Zapata has not lost a single crewman to a fatal accident in the history of our semisubmersible operation. We have spent many rig-years working in severe environment areas such as the North Sea and the North Atlantic.

Working offshore is a hazardous business. Any industry that confronts the hostile environments at sea that we and other mariners do is, by definition, hazardous. But it is not correct to say that the offshore industry is the most hazardous in the world. Our work is no more hazardous than similar industries that challenge hostile environments, such as coal mining, construction, or marine transportation.

We are doing everything that we humanly can to make our industry safer. During the past decade, the frequency of lost-time accidents in offshore drilling operations has fallen nearly 40 percent, despite the fact that the number of man-hours worked has in-

creased nearly 200 percent.

We at Zapata have found a direct correlation between on-the-job experience and decreasing accident frequency. This is one reason why a new crewman begins intensive safety training the moment he or she set foot on our rigs. We know this approach works. Since we initiated our present safety program in the midseventies, we have cut our lost-time accidents by 65 percent.

Lest I be misunderstood, my comments are not intended to praise Zapata. Zapata is not the only safety-conscious company in our industry. Safety programs receive top priority from both our individ-

ual companies and from our trade association.

Mr. Chairman, I am submitting this morning as part of this statement a number of documents typical of our industry's efforts to safely operate rigs, train our personnel, and which address in great detail subjects pertinent to this hearing. The material includes descriptions of the offshore industry and offshore drilling rigs. It covers safety and accident statistics and presents a profile of safety training programs.

Also included is a description of weather conditions as we now know them at the time of the Ocean Ranger accident. In addition, the material details procedures we follow in a potential emergency

aboard a rig, including abandon ship procedures.

This brings me to the end of my prepared remarks, Mr. Chairman. Thank you.

[The material follows:]

TESTIMONY OF THOMAS S. McIntosh, President, Zapata Off-Shore Co., Houston, Tex.

Mr. Chairman, distinguished members of the committee, I am Thomas S. McIntosh, president of Zapata Off-Shore Company. Zapata operates a fleet of 23 offshore drilling rigs. Currently, 12 of these units are in the U.S. The other 11 are operating overseas.

-Thank you for this opportunity to appear before you today to discuss the broad

question of offshore safety.

The Ocean Ranger tragedy affects all of us in the offshore industry. The incident, perhaps, touched Zapata and our colleagues at SEDCO even more closely because we both had rigs working near the Ocean Ranger. Those of us who work offshore share a common bond in facing the challenges and risks of the oil field and the natural elements of the sea.

Until we have more facts I cannot competently speculate on the cause of the accident. This much I can say: Our designers and operating personnel are striving every

day to see that such accidents do not happen.

The Ocean Ranger—like the Zapata Ugland and the SEDCO 706—was built to weather storms more severe than the one that struck February 15. On January 16-18 of this year all three rigs experienced a storm of greater severity then the one that sank the Ocean Ranger, and there were no problems. The Zapata Ugland and SEDCO 706 came through the same storm that somehow sank the Ocean Ranger,

and again, there were no problems.

We are not new to this kind of work. Zapata's semisubmersible fleet has a total of 29 rig-years of experience, including seven years in the North Sea and the north

Atlantic.

The term "semisubmersible" refers to a type of rig that is built with large pontoons which are normally submerged below the water line. It is a very stable structure; much more stable, for example, than the typical merchant vessel.

Furthermore, a semisubmersible rig has a sophisticated ballast system, much like a modern submarine, that insures that the rig remains on a nearly even keel. It has to if drilling is to be at all feasible.

Unless there is something extraordinarily wrong, a semisubmersible is almost impossible to capsize. In fact, in the nearly 30-year history of the offshore industry I am aware of only four cases of semisubmersible rigs capsizing. One was in 1964 in a hurricane. A second was in 1974 in the North Sea. The third was the Alexander Kielland, and the fourth was the Ocean Ranger.

The sinking of the Alexander Kielland, which claimed 123 lives was not, however, a drilling accident. The Alexander Kielland was operating as a floating hotel, not a drilling rig, and many of the men on board were not safety-trained.

Both the Ocean Ranger and the Alexander Kielland mishaps were exceptional in the extreme; not only because of the nature of the accident, but also because of the great loss of life. The overwhelming majority of rig accidents do not involve any loss of life.

Zapata has not lost a single crewman to a fatal accident in the history of our semisubmersible fleet. And, we have spent many rig years working in severe-environment areas such as the North Sea and the North Atlantic.

I do not want to understate the magnitude of the Ocean Ranger accident. No one can be untouched when 84 men die and a \$100 million piece of equipment is lost. But it is important that things remain in perspective.

When we have a rig accident, it can be spectacular. And because it is, it very legitimately receives extensive news coverage. The airlines have a similar problem. Working offshore is a hazardous business. Any industry that confronts the hostile

environments that we and other mariners do at sea is, by definition, dangerous. But it is not correct to say that the offshore industry is the most dangerous in the world. Our work is not more hazardous than similar industries that challenge hostile environments, such as coal mining, construction, or marine transportation.

We are doing everything we can to make our industry safer. During the past decade, the frequency of lost-time accidents offshore fell nearly 40 percent, despite

the fact that the number of manhours worked increased nearly 200 percent.

At Zapata, we have found a direct correlation between on the job experience and decreasing accident frequency. This is one reason why a new crewman begins intensive safety training the moment he or she sets foot on a rig.

We know this approach works. Since we initiated our present safety program we

have cut our lost-time accidents by 65 percent.

Zapata is not the only safety-conscious company in the business. Safety programs receive top priority attention from both our individual companies and from our trade associations.

One question that would undoubtedly be raised in the course of the debate that is already beginning to swirl around the Ocean Ranger accident is the question of

technology. Does the offshore industry use the best available and safest technology?

The answer is a firm "yes." We must in order to effectively challenge the increasingly difficult environments we face in the search for new energy resources, and to

stay competitive. We emphasize safety in the original design of our rigs and in the training of our

In speaking briefly today about accident statistics, safety training and new technology it has not been my intention to brush aside the Ocean Ranger accident. But the incident must not be blown out of proportion; it must not be allowed to become a political football for every group that—for whatever reason—hopes to block the development of this nation's Outer Continental Shelf. Our nation needs the energy resources that lie beyond the tide line if we are ever

to become energy self-sufficient.

The Ocean Ranger accident is not a good reason to restrict or prohibit offshore drilling. It is, instead, a challenge for all of us to continue to work together to further improve safety on the seas while the search for oil and gas goes on.

I am confident it can be done.

Mr. Chairman, I am submitting, as part of this statement, a number of documents which address in greater detail subjects pertinent to this hearing. The material includes descriptions of the offshore industry and offshore drilling rigs. It covers safety and accident statistics, and presents a profile of safety training programs.

Also included is a description of weather conditions at the time of the Ocean Ranger accident. In addition, the material details procedures we follow in a poten-

tial emergency aboard a rig, including abandon ship procedures.

If the Committee is interested, we also have a video tape of a model test on a rig we are constructing in Japan. This rig is specifically designed to have the same motion characteristics as the Zapata Ugland.

This brings me to the end of my prepared remarks, Mr. Chairman. I will be happy

to answer any questions that you or other members of the Committee have.

Thank you.

### HISTORY OF THE OFFSHORE DRILLING INDUSTRY

The offshore industry began between 1870 and 1900, when revolutionary oil discoveries were made in Summerland on the California coast near Santa Barbara. Production wells located on the beach made it apparent that oil fields extended under the water. So, long wharves were constructed out beyond the surf line with rows of drilling towers on them.

By 1910, oil was also being produced on three sides of Louisiana's Caddo Lake. Then, in the spring of 1911, the first well ever drilled on an inland lake struck oil. The activity at Caddo Lake continued, and by 1926 Gulf Oil Company had assem-

bled a sizeable fleet to prepare structures in the lake.

Summerland and Caddo fixed the pattern for marine drilling until the 1930s. During this time, the piling-supported platform was the principal base used everywhere.

In 1937-1938, Pure Oil Company and Superior Oil Company drilled a well about a mile offshore Cameron, Louisiana from a platform built on timber pilings. The drilling platform had no quarters for personnel, so each drilling crew was transported to work via shrimp boat. A promising field was discovered, and this one well seemed to open the whole continental shelf in the Gulf of Mexico to drilling.

Encouraged by discoveries and the conquerability of offshore drilling problems, other companies began exploring the Gulf and moving gradually farther offshore.

By 1946, structures were located as much as six miles from land.

In 1947, offshore drilling was ready to take another leap forward with a more mobile open-sea drilling base. The unit which sparked this advance was the Kerr-McGee drilling tender, Frank Phillips, a converted Navy barge.

For the first time the mobile drilling base had—in addition to drilling equipment—quarters for the drilling crews, galley, hospital, lounge, and recreation room, FM radio transmitter and receiver, and ship-to-shore telephone. In effect, the offshore drilling rig became a self-contained base of operations just like its onshore cousins.

The rig's first well struck oil, and by the fall of 1948 the outfitting of drilling

tenders was proceeding from Mobile, Alabama to Galveston, Texas.

In 1949, John T. Hayward designed the first platform that could move from well to well offshore. Hayward's design used two pontoons—one on each side of the barge. The pontoons could be ballasted independently and their vertical positions could be regulated by hydraulic jacks.

The barge was designed to be towed to the drilling site, and sunk to the sea floor. By the early 1960s, the submersible drilling rig had become an important tool for

the offshore industry.

At the same time that drilling activity was quickening in the Gulf of Mexico, interest in offshore exploration was increasing in southern California. It was recognized very early, however, that some of the major developments in the Gulf could not adapt to conditions along the Pacific Coast.

The ocean floor off California slopes steeply in contrast with the broad, gently sloping continental shelf in the Gulf of Mexico. In places the Pacific shelf—defined by the 600-foot contour—is not more than a mile or two wide. This rapidly shoaling continental shelf offers only a small area suitable for the support of bottom-resting

submersible barges.

These problems required something new in the design of a drilling base. The ideal drilling tool would be highly mobile, yet not dependent upon bottom support. It would be economical and would not require surface platforms. What was needed was a floating vessel that could drill through a well head set on the ocean floor. In the early 1950s the CUSS group—a combination of Continental, Union, Shell

and Superior oil companies—was formed to jointly explore the submerged lands off

California. They were the first to try drilling from a ship.

The group obtained a surplus Navy patrol craft and named it the Submarex. They converted the craft by constructing a cantilevered platform amidships which extended out over the water.

The first floating drilling experiments were performed in 1953. Experience with this ship led to the development of the Cuss I, a converted Navy barge. Cuss I dem-

onstrated the feasibility of drilling afloat.

Floating vessels which were "transparent" to surface waves were the second basic concept of flotation that emerged from early offshore experience. These vessels—which came to be known as "semisubmersibles"—derived buoyancy from vertical columns or horizontal tanks rather from a conventional ship hull. This type of vessel is partially submerged by flooding, and held in position with a carefully engineered mooring system.

A vertical column has a relatively small exposed area at the water line and consequently has a longer natural period in heave than a hull-type object. A column-stabilized platform, therefore, is relatively less excited by waves of smaller periods

than is a ship hull of the same mass.

If the dimensions of the structure are sufficiently large—as is usually the case—it is also quite stable in pitch and roll. The open, braced structure inherent in column stabilization is "transparent" to surface waves and, thereby, reduces horizontal motion

The floating vessel liberated marine drilling once and for all from the limitation

of water depth.

Another important type of offshore drilling rig is the self-elevating or "jackup" rig, which has legs that extend to the sea floor. The drilling platform can be jacked up or down the legs, depending on the water depth. This rig design became the preferred exploratory tool for water depths between 100 and 300 feet-especially where prevailing sea conditions precluded the use of floating vessels.

By the mid-1960s the number of operating rigs grew to more than 200 units having a total value of approximately \$1 billion. In 1949, 30-foot water depths were considered very deep, but by the mid 1960s, drilling in 300-foot water depths was

regarded as routine.

Today, there are nearly 600 mobile drilling rigs operating in waters around the globe. Drilling operations are considered in environments from the equator to the Arctic. And in waters ranging from a few feet to more than 2,000 feet.

## ZAPATA OFF-SHORE CO.

Zapata Off-Shore Company was founded in 1954 as one of the charter members of the offshore contract drilling industry. Form its inception. Zapata Off-Shore has been instrumental in pioneering the technology necessary to drill offshore. Zapata's first rig, the Scorpion, was the prototype for future generations of electro-mechanically elevating jackups.

In 1955, Zapata began conversion of a government surplus "Y/F" hull into what was initially a tender used in support of platform drilling operations. Later, it became the industry's first drillship capable of drilling with the derrick and sub-

structure cantilevered over the side of the hull.

In 1960, Zapata was successfully operating three of the "Nola" series of drillships in water as deep as 200 feet. In 1963, Zapata took delivery of the Sidewinder, a drillship equipped with outriggers designed to improve the roll characteristics which had plagued earlier drillships.

In the 1960s, Zapata's operations were rapidly expanded with the addition of several state-of-the-art jackup rigs capable of drilling in water depths of 250 to 300 feet.

In the early 1970s Zapata took delivery of two units which have proven to be the benchmarks for severe-environment jackups and semisubmersibles.

The Zapata Nordic, which has worked in the North Sea since its delivery in 1972, was the largest jackup constructed to that time. Zapata has since eclipsed the record size and structural strength of that rig with delivery of the Zapata Scotian in 1981. The Zapata Scotian was specifically built for operations offshore Nova Scotia, and

represents the state-of-the-art in jackup drilling technology.

Just as the Zapata Nordic and Zapata Scotian have become synonymous with excellence in jackup rig design, so too have the Zapata SS-3000 semisubmersible for severe-environment floating and the SS-2000 semisubmersible series for moderateenvironment, deep-water operations.

Zapata's severe environment semisubmersible, the Zapata Ugland, has compiled a superior operating record since it began work in 1974. It has successfully operated in the harsh environment of the North Sea, as well as in the North Atlantic off the

U.S. and Canadian coasts.

In 1975 and 1976 Zapata took delivery of four semisubmersibles which still represent the state-of-the art in conventionally moored, deep-water drilling technology. These rigs-the Zapata Concord, Zapata Lexington, Zapata Saratoga, and Zapata Yorktown—along with the Zapata Ugland, represent 29 rig years of semisubmersible drilling experience. The Zapata Concord holds the record for conventionally moored, deep-water drilling from a semisubmersible in the Gulf of Mexico, having successfully completed operations in 2,250 feet of water.

Last summer, Zapata Off-Shore Company concluded negotiations for the construction of yet another advanced-design semisubmersible, the prototype of the SS-4000 series. The SS-4000 incorporates the best features of the SS-2000 and SS-3000f designs, with the capability of severe-environment drilling in 2,000-foot water depths.

Zapata's staff of naval architects and design engineers have developed design variations of the SS-4000 which will accommodate dynamic positioning for ultra-deep water depths or a full compliment of production equipment to facilitate the exploitation of economically marginal oil and gas fields.

### EVOLUTION OF MOBILE OFFSHORE DRILLING UNITS

Two factors had the greatest influence on the evolution of offshore drilling rig designs. These are water depth and environment. The development of offshore rig designs during the last three decades has been closely tied to ever-increasing water depths and increasingly hostile environments.

Early offshore units were little more than movable piers capable of being towed from location to location. Then the unit was submerged, resulting in a bottom-supported structure. Knowledge gained from the operation of these submersible rigs

gave rise to two additional types: the jackup and the semisubmersible.

The jackup is the most popular of the mobile rig designs due to its relative insensitivity to wind and wave forces. Jackup rigs consist of a sea-going barge supported while drilling by three or four legs which project through the hull giving the appearance of a tripod or table. The legs are capable of being raised or lowered by means of electric or hydraulic motors.

While underway, the legs are raised to the greatest extent possible above the hull, enabling the barge to move with a minimum of impedance. On location, the legs are lowered until securely in contact with the seafloor; continued "jacking" raises the hull above the water high enough to assure clear passage of a storm wave beneath

the main structure.

Since the jackup, like the submersible, is supported by the seafloor during operations, the structural specification of its legs determines the maximum water depth in which it can operate. At present, it appears the economic limit to jackup operations is 300 feet of water. The legs associated with a jackup of this size are taller than a 40-story building.

The cost of constructing jackups capable of operating in excess of 300 feet of water rises exponentially with water depth. This fact has resulted in the development of technology enabling drilling operations to take place from floating platforms or ves-

sels.

The earliest floating vessels were surplus hulls from intermediate-size Navy vessels which were specially adapted to accommodate drilling equipment. Ship-shaped drilling rigs offer two advantages relative to other types of floaters—ease of mobilization over long distances and the capacity to carry large amounts of supplies.

The major disadvantage associated with drillships is their sensitivity to hostile environments. Drillships are, for example, rarely used to conduct drilling operations in latitudes greater than 40°. Efforts to increase the stability of drillships through the

use of outriggers, sponsons and mooring design have been largely unsuccessful.

The need for additional stability in floating drilling vessels gave rise to the development of the semisubmersible design in the early 1960s. The semisubmersible, as the name implies, floats partially submerged at drafts of 40 to 80 feet, depending on

the particular design and prevalent weather conditions. The degree to which the rig is submerged is controlled by the amount of seawater ballast taken aboard.

Like the jackup rig, the upper portion of the semisubmersible must have an eleva-tion above the water-line sufficient to allow the passage of a storm wave. When the semisubmersible is moved from location to location, the ballast is pumped out of the unit and the rig floats on ship-like lower hulls. The semisubmersible, while more stable than the drillship, is limited in the quantity of supplies which may be safely stored aboard. Semisubmersibles have a higher center of gravity because of a higher elevation above the water-line.

Floating drillings rigs—drillships and semisubmersibles—must remain stationary over the seafloor location of the wellbore. Station-keeping is accomplished through the use of mooring lines (chain, cable or a combination of the two) or dynamic posi-

tioning.

Conventional mooring involves using anchors and mooring lines to resist the tendency of waves and currents to push the vessel off location. This means of stationkeeping is effective in water-depths of 2,000 to 3,000 feet of water, depending on

environmental conditions and the composition of the mooring lines.

Because of limitations associated with conventional mooring, the industry has developed a means of maintaining station without the use of mooring lines: dynamic positioning systems. Dynamic positioning uses thrusters below the water-line to resist lateral and transverse motions. The use of dynamic positioning can double the rig's fuel consumption and is, therefore, useful only when conventional mooring proves ineffective.

### SEMISUBMERSIBLE RIGS

Semisubmersible rigs are grouped according to three criteria: the environment in which they are designed to work, their deckload capacity, and their maximum operating water depth.

The following table provides specifications on the two types of semisubmersible rigs presently operated by Zapata, and a third model now under construction in

The smallest of Zapata's semisubmersibles, the SS-2000 series, is designed for operation in the Gulf of Mexico, U.S. East Coast and similar areas, where the operating environment and proximity of shore-based supply facilities place moderate requirements upon the load carrying capacity and motion characteristics of the vessel. These semisubmersibles are equipped for drilling in water depths of 2,000 feet.

The Zapata Ugland, the company's largest vessel currently operating, is designed for the North Sea and similar areas such as Eastern Canada, where a stable vessel with large load-carrying capacity is required due to the logistic problems involved in resupplying the vessel during periods of severe weather. This vessel is equipped for

drilling in water depths to 600 feet.

The SS-4000 vessel, which is currently under construction, is very similar to the Zapata Ugland in design, but was enlarged approximately 20 percent to accommodate the additional weight of a mooring system designed for operation in water depths to 2,000 feet. The design also allows the rig to carry larger amounts of consumable supplies. This semisubmersible incorporates ice-strengthening hulls and a more comprehensive heating system to allow seasonal operations in Arctic areas such as the Bering Sea.

As a general rule, the more hostile an environment a semisubmersible is designed to operate in, the larger it must be to provide the load capacity and low motion response needed to successfully operate. Water depth and well depth, on the other

hand, are generally not directly related to the size.

# COMPARISON OF ZAPATA SEMISUBMERSIBLE DESIGNS

		ZAPATA SS-2000	ZAPATA UGLAND	ZAPATA SS-4000
Design Envir	ronment	Moderate	Severe	Arctic
Platform Dis	sensions-ft.	260 x 200	367 x 210	257 x 203
Haximum Desi	ign Wave - ft. Drilling:	75	100	119
Maximum Well	Depth - ft.	16,000 - 20,000	16,000 - 20,000	20,000 - 25,000
Deckload Capacity - short tons		2,000	3,000	4,000
Operating Di	splacement - short ton Drilling: Survival:	18,760 16,750	30,000 27,500	36,280 33,530
Draft-ft.	Drilling: Survival:	43 35	80 65	77 61
Air Cap (wat	erline to underside) - Drilling: Survival:	ft. 31 39	45 60	45 61
Mooring Syst	em - No. of lines: Size - inches:	8 2-3/4	10 3	12 3
Number of Cr	ew	84	87	100

# THE ZAPATA UGLAND CREW

The crew aboard a self-propelled semisubmersible rig consists of a marine crew and an industrial crew. Because the Zapata Ugland is a Norwegian-flag vessel, its crew is organized slightly differently than most U.S.-flag rigs.

Generally, the marine crew is responsible for the seaworthiness of the vessel, its stability, its propulsion system, the lifesaving and fire fighting equipment, and those functions normally relating to standard shipboard systems, such as propulsion, elec-

trical power, bilge, ballast, fire fighting, sanitary, etc.

The marine crew is divided into two departments: the deck and the engine department. The deck department is headed by the barge master and consists of a stability officer, a radio operator, two watch-standers, an assistant watch-stander, a boe'n and two able-bodied seamen. The engine department consists of a chief engineer, a first-assistant engineer, engine room operators and electricians. The chief engineer reports directly to the barge master.

The industrial crew, headed by the senior toolpusher, is in general control of the rig during drilling operations. The industrial crew is responsible for the drilling aspects of the semisubmersible rig and the associated equipment necessary to carry

out that function.

The industrial crew organization aboard the Zapata Ugland is structured as fol-

lows:

The person in charge of overall operations while the rig is in a drilling mode is the senior toolpusher. He is assisted by a night toolpusher. Reporting to the toolpushers are the drill crews, roustabout crews, welder, subsea engineers, and rig mechanics.

The drill crews include a driller, assistant driller, derrickman, mudman and three floor hands. The drill crew is physically responsible for the actual drilling of the oil/gas well and all downhole activities relating to the actual drilling of the well. The

normal work schedule for this crew is 12 hours on and 12 hours off

The roustabout crew is led by the crane operator, who is assisted by an assistant crane operator. Three roustabouts and a storekeeper comprise the crew. The roustabout crew is responsible for moving materials about the rig, on- and off-loading supplies from supply boats, and assisting the drill crew as necessary in functions

such as moving pipe from the pipe rack to the drill floor. The roustabout crew also is responsible for routine maintenance and housekeeping, except for crew quarters, and works a schedule of 12 hours on and 12 hours off.

The subsea engineers are responsible for the blowout preventer stack, its mainte-

nance and operation, as well as all associated control systems.

Rig mechanics are responsible for the maintenance of the industrial equipment

aboard the rig.

The toolpusher works with the barge master regarding all items which effect the loading/stability of the rig during the drilling operations. Such items could be the addition of bulk material, the loading of casing, drill water, diesel oil, etc. During the drilling operations, the barge master will review the rig stability prior to onloading additional equipment, and will confirm that the rig is operating within the limits prescribed in the approved operating booklet.

The marine crew, headed by the barge master, has complete control of the rig while the rig is in transit-and during anchoring operations. The marine crew also has control over operations of the rig any time the rig is disconnected from the blowout preventer stack. During a severe storm, for example, the barge master is in

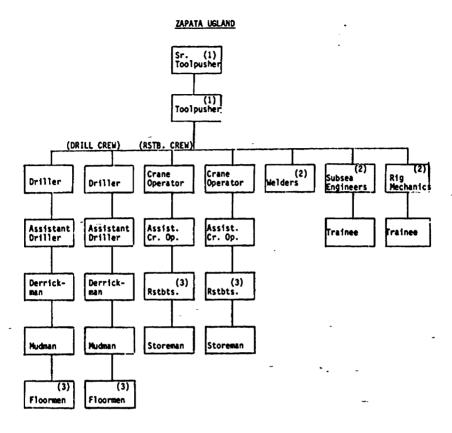
command

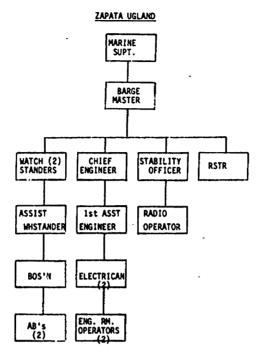
Only semisubmersible rigs which are self-propelled have a licensed marine crew. Zapata operates four semisubmersible of the SS-20000 class which are not self-propelled. The person in charge of these rigs is the senior toolpusher, assisted by the toolpusher.

The general organization on a large semisubmersible is similar to that described for a self-propelled rig. There is a drill crew, headed by a driller; roustabout crew, headed by the crane operator; a marine crew, headed by the barge engineer; a main-

tenance crew, headed by the senior mechanic/electrician.

The difference between a self-propelled semisubmersible and a barge semisubmersible is that the person in charge and maintains full command of the rig at all times. All departments answer directly to the senior toolpusher on a barge semisubmersible.





# SAFETY EQUIPMENT ABOARD ZAPATA'S PRESENT SEMISUBMERSIBLE RIGS

# SS-2000

QTY.	TYPE	CAPACITY
2	WHITTAKER SURVIVAL CAPSULE	28
1	MARINE SAFETY EQUIPMENT LIFEBOAT	42
4	INFLATABLE LIFE RAFTS	25

- . 175 (minimum) Life Preservers
- . 8 Life Ring Buoys
- . 1 Smith Wesson Line Throwing Apparatus
- . Fully Equipped Hospital Manned by Two RSTR's (medics)
- . Emergency Generator CAT D343 with 250 KW Generator
- . 2 Fire Pumps Specify Offshore Equipment Model P1044
- . CO System -- Fixed System in Engine Room, Paint Locker, and Mud Pump Room
- . Organic Foam System for Heliport
- . Dry Chemical in Galley and Heliport
- . Hand Portable Fire Extinguishers, Class All, Bl1, C1, C11

# SS-3000

QTY.	TYPE	CAPACITY
2	WHITTAKER SURVIVAL CAPSULE	28
1	WATERCRAFT COVERED LIFEBOAT	44
8	INPLATABLE LIFE RAFTS	25
1	RESCUE BOAT	20

- . 175 (minimum) Life Preservers
- . 175 (minimum) Survival Suits (for icy environments)
- Fully Equipped Hospital Manned by Two RSTR's (Ex-Canadian Military Medical Personnel)
- . Emergency Generator CAT D343 with 250 KW Generator
- 2 Fire Pumps Layne Specific Model 10" VHC-3 480 GPM @ 428' Developed Head
- CO System Fixed System. Hard Piped to Engine Room, Paint Locker, Propulsion Room, and SCR Room
- . Organic Foam System for Heliport
- . Hand Portable Fire Extinguishers, Class All, B11, Cl, Cll

### LIFEBOATS AND LIFE RAFTS

There are two types of fully enclosed lifeboats: the traditional boatshaped craft and the capsule type. Both are stable and will right themselves if all the doors are closed. Both are self-propelled. The boat-type craft can move faster (6 knots, versus 4 knots for the capsules), but capsules are more maneuverable.

Both kinds of lifeboats are equipped with provisions, medical supplies, radio transmitters and beacons, seat belts and life vests.

The major difference between the two lifeboats are the launch systems. The traditional lifeboat is launched using two cables, while the capsule is launched with a single cable attached to the top. The single cable arrangement makes the capsule

easier to retrieve because a crane can be used to hoist it.

While the lifeboat is the preferred means of escape from a vessel—especially in severe environments-Zapata rigs also include life rafts onboard. Self-inflatable life rafts can be either launched by a davit or thrown over the side. The rafts are not fireproof, gasproof or self-propelled like lifeboats. They are, however, easy to tow, and have paddles. Some protection is provided by a canopy which automatically erects when the vessel inflates. In high waves and wind, the raft's motion can be controlled to some extent by setting a sea-anchor.

# ZAPATA SARATOGA An SS-2000 Semisubmersible Drilling Rig Survival Capsules

# SAFETY STANDARDS AND ACCIDENTS IN FRONTIER DRILLING OPERATIONS<sup>1</sup>

In this time of national hypersensitivity to matters involving safety and environmental quality, the very raising of the question of offshore safety seems to creat a public presumption of guilt and negligence. In the offshore industry we find ourselves in the uncomfortable position of being assumed guilty, and forced to prove ourselves innocent.

I believe the offshore industry is up to the task of safely drilling in hostile, fron-

tier areas. The basis for my assertion: current performance.

And so saying, I enter the great debate.

On one side of the debate stand the critics of the industry who fault offshore safety standards-and who specify increased regulation and extensive technological

change as remedies

On the other side stands the industry itself. We believe the safety issue is misunderstood—that statistics have been used to paint an inaccurate picture. We believe that improved safety can only come through an approach that stresses a human solution.

We already have the equipment and the procedures to tackle frontier drilling operations: the industry is ready to take on severe environments offshore. The key to safe offshore operations is safety-trained and experienced personnel-not new regu-

lations or expensive hardware.

That was easily said, but not so easily done. Safety-trained personnel are not something you order like so many tons of drilling mud. Developing safety-trained personnel requires a detailed, often laborious, on-site effort.

And it requires something even more basic: a management commitment to view safety as a managed activity like any other, and to give it whole-hearted support. I will have more to say on this topic in a moment. But let's begin this discussion by laying some groundwork. Just how dangerous is the offshore industry? That simple question does not have a simple answer.

To begin with: statistics here can be misleading. Every industry has a different array of individuals working for it. In our industry, for example, a very large percentage of employees actually work on drilling rigs. In some companies, that rate stands near 95 percent.

It can be misleading to compare the offshore industry with other industries unless that industry has a similar ratio of persons actually exposed to industrial accidents. An industry that has 40 percent white collar workers will certainly show a lower accident frequency than one with 95 percent of its workers in industrial functions.

Statistical concerns notwithstanding, some conclusions can be drawn about offshore safety. Offshore drilling is, for example, more hazardous than selling insurance, working in an office, or operating a service station. That is hardly surprising because none of those vocations require working in the harsh environments often tackled by the offshore industry.

A recent report by the National Research Council, "Safety and Offshore Oil",

notes that:

"The frequency of injuries on oil and gas operations on the outer continental shelf is comparable to that of other industries such as mining, maritime and heavy

construction.

The offshore industry has, in fact, shown a downward trend in the incidence of disabling injuries during the last decade. Since 1973, for example, the frequency of disabling accidents has fallen more than 20 percent. Yet during the same period, the number of hours worked has increased nearly 150 percent.

Why, then, is the offshore industry considered an unsafe or unusually hazardous

industry?

In large part, this is a result of the "airplane syndrome." There is a widely held belief that air travel is a dangerous business when, in fact, airline travel is safer than taking your car out for a spin on the freeway.

The difference is that auto accidents involve small numbers of people and generally receive only local attention. When an airliner goes down it is tragic and dramat-

ic, and receives international news coverage.

The same is true of the offshore drilling industry. One accident last year alone, caused more than one-third of the 331 deaths reported as a result of mobile rig accidents during the entire decade of the 1970s.

It can be argued that a extraordinary mishap like this may never happen again. Nevertheless, this dramatic incident is responsible for much of the clamor to impose

<sup>&</sup>lt;sup>1</sup>Conference on the Future of Gas and Oil From the Sea, Center for the Study of Marine Policy, University of Delaware, Newark, Del., Friday, June 19, 1981

more stringent safety regulations—and to revise technology aboard the world's off-

shore drilling rigs.

I am talking, of course, about the capsizing of the Alexander L. Kielland. Yet the Kielland incident provides an excellent case study. It shows that improving offshore industry safety is not entirely or even principally a technical problem: it is primarily a personnel training task.

The Alexander L. Kielland was built as a drilling rig, but its Norweigian owners never used it for that purpose. Since it was delivered in 1976, the Kielland has served as an accommodation platform—a "floatel".

The platform of the rig was supported by five columns that served as pontoons. These columns were, in turn, supported by series of bracings. The weakness in this system was caused by a hydrophone, which had been welded to one of the bracings.

This was a critical error—and it was a human error. The welds were not as good as they could have been. They resulted in the fracturing of the steel in the bracing. On March 27, 1980, at around six p.m., the Kielland lay at anchor on the Ekofisk

field close to the production platform "Edda 27 C". The weather was rough with

high winds and waves running to more than 30 feet.

The stress was too much for the defective bracing and it parted. The redistribution of stress overloaded the five other bracings connecting one of the five floatation columns to the platform. They failed, then the column broke away entirely.

With that column gone, the Kielland immediately heeled over about 35 degrees and temporarily stablized. It continued to heel and sink, however, and 20 minutes later turned upside down. In all, 123 of the 212 men on board lost their lives.

What caused this tragedy? Design problems were a contributing factor, but they

were made much worse by human error—both before and after the fact.

Norway is legendary for having probably the strictest rig regulations in the Free World. As a consequence, the Kielland was inspected under the most stringent in-

ternational principles then known, and passed those tests.

According to a member of the Royal Norweigian commission appointed to investigate the Kielland accident, the cracks originated during construction. The rig was inspected in the shipyard and in operation. Yet in both cases the inspectors missed the fatal cracks caused by the hydrophone welds.

Design and technical problems augmented by human error explain why the Kielland capsized, but they do not wholly account for the high loss of life in the acci-

Of the more than 200 men on the platform at the time of the mishap only a handful had significant offshore experience, or apparently had received the safety orientation and training in use by most U.S. companies. This training, incidentally has long been advocated by the International Association of Drilling Contractors, the industry trade association.

When the Kielland heeled over, panic ensued and men rushed to the lifeboat sta-

tions. Few took the time to get life jackets.

It was panic that was the greatest enemy on the rig that night. Nearly 200 men were aboard the Kielland in one of the more-hostile marine envoronments in the world. Yet, these men were virtually without safety orientation and training—without a clear idea of what they should do in an emergency.

In Zapata's rig-based safety program we train our men and-women to deal with a worst-case scenario: total loss of control They know to expect the unexpected. A safety-trained rig crewman does not panic; he works as part of a team to solve the

problem or abandon the rig.

The International Association of Drilling Contractors issues what it calls the "Charlie Report" every year. This report details injury statistics for both the on-shore and offshore drilling industries.

In the 1980 Charlie Report, just out, the causes were reported for a total of 1,049 lost-time accidents in U.S. waters. Of these, 754—more than 70 percent—were attributed to "unsafe acts" rather than "unsafe conditions". In foreign waters, 50 of 69 reported lost-time accidents were attributed to unsafe acts.

At Zapata, we find that there is a direct correlation between on-the-job experience and decreasing accident frequency. This is one reason why a new Zapata employee

begins intensive safety training the moment he or she sets foot on the rig.
We know this approach works: since Zapata initiated its safety program in 1977, we have cut lost-time accidents by 65 percent. Downtime due to equipment failures was also reduced by 30 percent. Furthermore, employee attrition—always a problem in industry—has decreased from more than 100 percent a year in 1977 to about 50 percent today.

I can add those additional numbers because at Zapata our strategy is to combine safety with training for all employees. As far as we are concerned, the two are parts of the same thing: doing a job right means doing a job in the safest possible manner.

Behind all of our safety and training programs—behind the more than two million dollars a year we spend on our programs—is a deep and practical conviction. We believe that preventing accidents and developing people's skills has a direct positive effect on our company's profitability, and that is any business' bottom line. Safety training must be viewed as a vital management function: as vital as per-

sonnel, as inventory, or as cash flow. Safety must be a production-oriented process: your product is safety-trained personnel. A safer workplace means reduced downtime. It means reduced medical and insurance costs. And it means better company acceptance in the marketplace.

At Zapata—I cite examples from my company because I am most familiar with them—our commitment to safety extends to the top levels of management. Among other things our program includes regular meetings of our Accident Prevention Review Board. Chaired by our senior vice president for operations, this panel reviews accidents and insures that corrective action is taken.

We also award Safe Plan of Action Awards to emphasize the importance of having

a definite plan for safety in all situations.

At the rig level, the key operative in Zapata's safety program is the Rig Safety and Training Representative—usually known as the RSTR. RSTRs provide full-time, rig-based safety training, as well as administrative and employee relations assistance, to our crews. Zapata's RSTRs are trained to provide emergency medical treatment-many served as medical corpsmen in the armed forces-but their primary responsibility is accident prevention.

The RSTR is one of the first people a new employee meets when he sets foot on a Zapata rig. He will see him again and again—on the drill floor, by the mud pits, and at rig safety and training seminars. The RSTR becomes a trusted counselor to

the rig crew because they know he is there for their support and well-being.

Zapata's safety and training programs reduce downtime, and that reduces costs.

But they are also morale builders because they are "people programs". They build a feeling of belonging—of being a proud part of a highly successful operation. When an employee takes pride in his job, he will take extra care to be efficient and productive.

This is important in today's drilling industry. Just as the industry has changed, so has its workers. Today we have a better educated, more sophisticated work force than we had 20 or even 10 years ago. And a work force less tolerant of harsh environments than their fathers were.

Compensation is one way we can make offshore work attractive, but that's not enough. We also have to make the work place safer and the job less strenuous. And we have to build that all important "esprit de corps."

Once again we fall back on our safety and training programs. Once again we have a demonstration of their importance as a management tool. Zapata's personnel turnover is quite low within the industry—and we lay the credit to our safety and

training programs.

I should mention, incidentally, that there is a bonus to our safety program that extends beyond safety or morale building. We are finding that the infrastructure we have built—the management commitment, the communications network, and the implementation procedures—can be very effectively used to manage other areas on the rig. Job evaluation, monitoring the marine condition of the vessel, and inventory control, are three of the areas that are responding favorably to the management system we first built for our safety and training programs.

As far as I know, when Zapata initiated its safety program in its present form it was the first in the industry. But it was quickly copied by other companies. That is, certainly, a vote of confidence for Zapata. But it is also one more illustration of the

continuing concern for safety in the offshore industry.

When the International Association of Drilling Contractors' predecessor organization was founded in 1940, the Safety Committee was one of the first committees organized. Today, the IADC sponsors 20 schools that work to insure that the organization's membership is kept current on the latest in personnel development techniques. Last year they provided courses for nearly 8,400 persons.

In the offshore industry we realize full well that we operate in hazardous areas. We know we must do all we can to maximize the safety or our crews, and minimize

the danger of damage to our equipment.

Technology is not a restricting factor in challenging the frontier oceans of the world: the technology is coming along just fine. In fact, a number of recent technological advances—better pipe-handling equipment, for example, or computer technology and sateilite navigation—have combined to make the offshore job easier than

it was a decade ago.

We have been quick to utilize technological breakthroughs—not because of government regulations, but because we have to in order to stay competitive—and to be able to effectively challenge increasingly difficult environments.

Our efficient and effective equipment and training methods evolved because of the difficulties of confronting real problems with finite resources. Few, if any, have

Yet, when a dramatic tragedy such as the Kielland disaster focuses government and public attention on the drilling industry, the inevitable cry is for more regulation. We can point to industries such as coal mining, however, which are highly regulated, but whose accident record is still worse than ours.

I do not want to give a mistaken impression here: the offshore industry is not utterly without oversight now. We are already subject to numerous federal safety reg-

ulations while operating on this nation's outer continental shelf.

Our experience, though, has led us to question whether detailed government regulations actually improve safety. That skepticism was deepened recently by an incident in the Gulf of Mexico. Two Coast Guard inspectors got aboard an old submersible rig and proceeded to write a record 188 citations for failures to comply with Coast Guard safety regulations.

It was only after the inspection was over, and the citations written, that the Coast Guard discovered that of all the rigs in the owner's fleet the old submersible has the best safety record! In fact, there had not been a lost-time accident on the rig for two

I believe a strong argument can be made that the foundation of improved offshore

safety can rest neither on increased regulation, nor solely on technology.

No, people are the cause—and the solution—to safety problems. When safety programs are given the commitment of management and managed as a vital part of the overall business operation, when they are based on on-the-job experience and safety training, then the results can be outstanding.

In the offshore drilling industry we believe we have achieved a level of "acceptable risk." The record of four decades clearly shows the offshore industry's commit-

ment to providing the safest possible working conditions, given the job we have to do and the environment in which we must do it.

We are ready and prepared to meet the challenges of drilling for and producing petroleum in the world's frontier offshore areas.

Thank you.

# ZAPATA'S SAFETY AND TRAINING PROGRAMS

RSTR: Zapata's rig safety and training representatives (RSTRs) provide full-time, rig-based safety, training, administrative, and employee relations assistance to Zapata rig crews. The RSTRs are trained to provide professional emergency medical treatment if needed, but their major responsibility is in the prevention of accidents. Zapata was the first drilling contractor in the industry to establish an RSTR program. Similar programs now have been adopted by other contractors.

ZAP: The Zapata Accident Prevention (ZAP) program was developed to help oper-

ations personnel better accomplish their safety goals. This comprehensive program

consists of:

Accident Prevention Review Board (APRB), chaired by the Zapata drilling division's senior vice president of operations, meets monthly to review recent accidents and insure corrective action has been taken. The comments, or requests for additional information, from each review are sent back to the rig involved via the appropriate chain of command.

Accident Case Studies, which are distributed fleet-wide, document many of the accidents reviewed by the APRB, and offer insights into what happened and how it

could have been prevented.

ZAP Alerts are special bulletins distributed periodically to alert our rigs to potential dangers or serious accidents that occurred within the offshore drilling industry. Safety and Training Audits are conducted regularly on all rigs by safety and

training professionals, to help crews identify and correct safety problems.

Safe Plan of Action Award promotes the importance of having a definite plan for safely accomplishing all tasks. This award recognizes and rewards outstanding efforts in critical situations through the use of a Safe Plan of Action.

Quarterly Safety Awards are presented to rig work teams to recognize employees' accident-free teamwork and to encourage effective accident prevention practices in the future.

OJT: Zapata's On-The-Job Training (OJT) program is a structured form of training that prepares employees for promotions in drilling, maintenance and marine job categories. Extensive "handson" training, with the trainee's supervisor acting as the instructor, is supplemented by videotapes and printed materials contained in each rig's training library. Currently, Zapata has 23 OJT programs for individual classifications. In addition to and supplementing the rig-based OJT programs are:

Well Control Training for Drill Crews, a United States Geological Survey ap-

proved program to develop and maintain pressure control skills.

Weekly Safety Meeting program provides a regular opportunity for supervisors to meet with their crews for planning and explanation of upcoming operations.

Weekly Emergency Drill program consists of regular drills that simulate fire and/

or abandon rig situations. The entire crew participates.

Timely Topics, a monthly instructional session conducted by the RSTR, which involves the entire crew in a presentation and discussion of that month's safety topic.

### OUTSIDE SCHOOLS

This program promotes enrollment in advanced technical courses for rig supervisors. All class information and schedules for drilling industry-and manufacturersponsored courses are compiled and distributed to top rig supervisors semi-annually.

### IN-HOUSE SCHOOLS

This program offers courses of particular significance to Zapata technicians and supervisors. Developed by company drilling, engineering and training personnel, these courses are conducted classroom-style with a tight focus on Zapata's specific procedures and operational goals. In-house schools include:

ZEST (Zapata Effective Supervisor Training) provides managers and supervisors with useful information and techniques for being more effective leaders and team

players.

Z-WELD (Zapata Certified Welder's Training) provides rig welders with advanced training and certification opportunities. To become "Zapata Certified Welders," participants in the two-week course must pass a test that complies with standards and requirements established by the American Bureau of Shipping. Z-Fire (Zapata Fire Defense Course) is conducted four times each year in conjunc-

tion with the Fire Protection Division of Texas A & M University. This five-day course provides key Zapata personnel with the knowledge and experience to develop

more effective fire prevention and fire-fighting practices on their rigs.

Z-Dex (Zapata Drilling Excellence Training) was designed to further develop Zapata drillers' knowledge and skills, and to better prepare future drillers. The intensive five-day course focuses on ZOS drilling procedures, well control and drilling problems. An advanced Z-Dex has been developed for rig management personnel as well as drillers who achieve the highest performance ratings in the basic Z-Dex course.

### **EXAMPLES OF RIG SAFETY MATERIALS**

Following is a copy of the General Safety Rules that are posted throughout

Zapata rigs and that are discussed periodically at rig Safety Meetings.
Rule #8 directs the reader to study the rig "Safety Bill" so he or she will know his or her stations in case of a fire or other emergency. A copy of a Station Bill for a Zapata semisubmersible rig follows the General Safety Rules.

The third document in this section is a copy of a page from the Log Book of the Zapata Lexington, a semisubmersible rig presently working offshore Louisiana. The document shows the frequency of fire and boat drills, and safety and equipment checks aboard the rig.

# **Basic**

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- No smoking will be allowed in designated hazardous areas on the rig.
- Horseplay, practical joking and fighting are positively prohibited.
- The use or possession of drugs or intoxicating beverages is strictly prohibited on the rig, crew boat or helicopter.
- Housekeeping is a must. All areas and accesses will be maintained at all times.
- Handrails should always be used when going up or down ladders or stairs.
- Atmospheric conditions such as adequate ventilation, presence of oxygen and absence of explosive gases will be assured before working in voids, tanks or other enclosed spaces.
- Loose or baggy clothing, finger rings or chains, will not be worn, and long hair will be pulled up under hard hat.

# **Emergency**

8. Know your "Station Bill", the location of your fire and abandon station, and your duties at these stations. You will be expected to participate in all drills. Know the location of the fire fighting equipment: Report used or missing fire extinguishers to your supervisor. Never put a spent extinguisher back before it is serviced.

# **Transportation**

- 40. Observe all safety rules established for helicopters and crew boots. Pay particular attention to "skipper" and "pilot" instructions.
- 11. The personnel basket is to be used for the transfer of personnel and personal baggage only, and limited to four people at a time.
  12. When working over or being transferred over water, all persons will wear a proper type life vest securely fastened.

# Protective Clothing & Equipment

- 43. Hard hats and hard toe boots will be worn by all personnel at all times outside the quarters area.
- 14. Safety goggles are provided for your eye protection. They will be worn during any operation where the eyes are exposed to flying or splashing particles. Face shields are also provided to protect your face during these same operations, and should be used with eye protection.
- 15. Protective clothing and equipment such as subber aprons and gloves, eye and face protection and dust masks will be worn when mixing caustic or other harmful chemicals.
  16. Hearing protection will be worn when
- Hearing protection will be worn when working in designated noisy areas for prolonged periods.

# **Tools & Equipment**

- All portable electric tools and droplights will be effectively grounded.
- 16. Hand tools such as hammers, har: mer wrenches, and pipe wrenches will be kept in good condition and properly stored.
  19. Labor saving devices such as "come alongs", black and tackle, overhead hoists
- alongs", black and tackle, overhead hoists and air tuggers will not be loaded beyond rated capacities.

# Reporting

- Defective equipment, machinery, hazardous conditions or unsafe work practices or conditions shall be reported immediately to your supervisor or the Toolpusher.
- 21. All injuries will be reported to your supervisor regardless of how minor they may seem.
  22. Regular weekly safety meetings will be held to discuss and promote accident prevention on your rig.

# **Work Smart**

- 23. Stay alert at all times. Know what is going on around you. Know the safe operating procedures concerned with your assigned duties. When in doubt, ask your supervisor or the Toolousher.
- 24. Keep hands and feet clear of "crushing" points.
- 25. Always get help when physically lifting heavy loads. Use proper lifting techniques. Do not walk, work, or stand under suspended loads.

# STATION BILL

# FOR SEMI SUBMERSIBLE ZAPATA SS 2000 SERIES PERSON DISCOVERING FIRE IMMEDIATELY SOUND THE GENERAL ALARM

ABANDON RIG SIGNAL at LEAST SEVERI ITS SHORT RIGHS ON THE SELESAL ALARM SELLS FOLLOWED BY A CONTINUOUS MINSME OF THE SEVERAL ALARM SELLS

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# LOG BOOK Zapata Off-Shore Company

LOCATION 1

FIRE DRILLS (WEEKLY)	BOAT DRILLS (WEEKLY)	LIFEBOAT/LIFERAFT SERVICING:	EQUIPMENT (WEEKLY)	SAFETY EQUIPMENT (INSPECTION)
DATE: 17 JAM (83) TIME: 1500 PMS DRILL DURATION: 10 MS	DATE: 10/Jan (*1 TIME: 1:30 A). DRILL DURATION: 10 Mars.		UNISTLEFOG HORN  UDATE: 1/2/1/32  CONDITION: 1/2/K	FIRE FIGHTING DATE: 17/JAM/K2
FIREFIGHTING EQUIPMENT CONDITION:	BOATS SWUNG OUT (NO.)	FLOATING (RIG MOVES)	GENERAL ALARM	STOUT PLANT PLANT
(6000)	BOATE LOWERED (NO.) AH	WATERTIGHT INTEGRITY OPEN DAYE: TIME: REASON	COMMUNICATIONS DATE: 7/2/2/2	PERSON: IN MOVINGELLE COMPANY: 205
REASONS FOR NOT COMPLETING	MOTORS OPERATED (NO.)	CLOSE DAYE TIME: REARON:	DATE: / / Shold 3- CONDITION: (askets)	DISTRESS SIGNALS (26 MOS.)  DATE: Von Lang 1978
	BOAT CONDITION:	DRAFT: 4/3' FORE: 4/3' FT.	DATE: /7 / Tan/5 2. CONDITION:	LINE THROWING EQUIP.
REASONS FOR NOT HOLDING		APT: 43 PT.	EMERGENCY LIGHTING DATE: 17-1791/4	DATE: Stull on villy
	LIFESAVING EQUIPMENT CONDITION OF CONDITION	DISTANCE FROM SURFACE FT.	GODI)	REMARKS
LINE THROWING (4 MONTHS)	UFEBOAT/LIFERAFT INSPECTION:	WATER DENSITY S. W. Water	QUARTERS SPACE (WEEKLY)	
DATE Shills on order	DATE OF INSPECTION 20 - 0 12	WELDING	DATE 17/Jan/52	
	LIFEBOAT/LIFERAFT (WINCH INSPECTION):	HAZARDOUS AREAS	CONDITION: /	
PERSONNEL INSTRUCTED:	RADIO INSPECTION: OX	PEARONS: 15 = popular William	(Onen)	
	DATE OF INSPECTION:			

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# YEARLY ACCIDENT FREQUENCIES - U.S. OFFSHORE INDUSTRY

YEAR	TOTAL MAN HOURS	LOST-TIME ACCIDENTS	ACCIDENT FREQUENCY*
1973	15,313,919.25	797	52.04
1974	3,883,462.00**	782	49.96
1975	18,663,520.00	781	41.85
1976	18,184,585.00	1,076	59.17
1977	28,834,239.00	1,343	46.57
1978	36,173,267.00	1,797	49.08
1979	36,043,945.74	1,646	45.66
1980	37,077,474.00	1,518	40.94
1981†	43,629,455.00	1,485	32.09

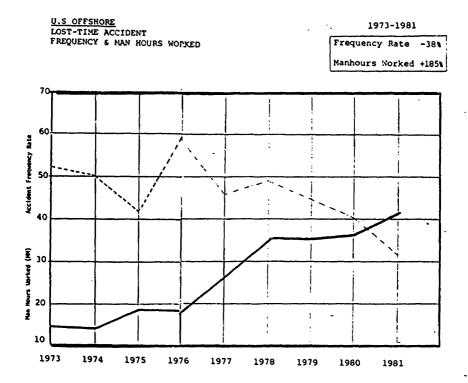
SOURCE: International Association of Drilling Contractors

<sup>\*</sup> Accident Frequency = Lost-time Accidents x 1,000,000

Man Hours of Work

<sup>\*\* 1</sup>st Quarter Only

<sup>†</sup> Preliminary Figures



SOURCE: International Association of Drilling Contractors

# OFFSHORE INDUSTRY

# TOTAL LOSS ACCIDENTS PER RIG YEARS

Rig Years

Legend:

		7	Accidents		_	
	1956-60	1961-65	1966-70	1971-75	1976-80	TOTALS
SUBMERS IB LES	128	$\frac{143}{0}$	139 0	101	98	<u>609</u> 2
JACKUPS	118 5	208 6	445	639 12	1041 16	2451 47
BARGES (Non self-propelled)	<u>57</u>	87	124	$\frac{137}{2}$	142 0	<del>547</del> 6
DRILLSHIPS	16 0	42	<u>95</u>	144	<del>268</del> 0	<u>565</u>
SEM I SUBMERS IBLES	<u>8</u>	1 <u>8</u> 2	<u>99</u> 1	250 1	<u>578</u>	953 8
TOTALS	327	498 10	902 10	1271	2127 20	<u>5125</u>

NOTE: The mortality rate against rig years by 5-year increments shows a significant downward trend in accidents. In the 10-year period between 1955 and 1965 the accident ratio to rig years was 2.1%; however in the last 5 years the ratio dropped to 0.9% and the overall cumulative ratio dropped to 1.2%.

### OFFSHORE INDUSTRY

### TOTAL LOSS ACCIDENT CAUSES

	ENROUTE FOUL WEATHER	STORM ON LOCATION	BLOWOUT	OTHER	(MILLIONS)
Jackups	20	7	10	10	\$415.4
Barges	1	3	2	0	. 13.9
Semisubmersibles	2	3	2	1	140.1
Submersibles	0	2	0	0	5.1

# SEMISUBMERSIBLE RIG ACCIDENTS 1955-1981

Table Provided by Rowan Companies, Inc.

RIG NAME	OWNER	DESIGN 1964	ACCIDENT LOCATION	DESCRIPTION OF ACCIDENT	COST OF DAMAGE
Bluewater No. 1	Blue Water Drlg.	Bottle type, converted submersible	G. of Mexico	Capsized and sank during Hurricane Hilda. Not salvaged.	\$5.7 MM
Bruyard (Also called Sedco 135 B)	Royal Dutch/Shell	1965 Sedco 135 design, 3 columns	South China Sea	Broken up while under tow to Borneo. 13 casualties. Not salvaged.	\$7.5 MM
Ocean Prince	Odeco	1968 Odeco "Ocean Queen" design, 8 columns, 4 lower parallel hulls	North Sea	Destroyed by storm while sitting on bottom as a submersible (35-50 ft. waves, 40 mph winds). Hull broken up. Not salvaged.	\$7.0 MM
Ocean Traveler	Odeco	Odeco "Ocean Queen" design, 8 columns, 4 lower parallel hulls.	North Sea	Minor structural damage during storm. Repaired.	Insignificant
Ocean Viking	Odeco	Odeco "Ocean Queen" design, 8 columns, 4 lower parallel hulls.	North Sea	Minor structural damage during storm. Repaired.	Insignificant

		<u>1969</u>			
Mariner I	Santa Fe Int'l.	Santa Fe Mariner design, 6 columns, 2 lower parallel hulls.	Argentina	Structural damage during rough weather. Repaired. See 1973.	\$0.2 MM
Sedco 135 G	Sedco, Inc.	Sedco 135 design, 3 columns	Australia	Severe fire damage from blowout. Repaired.	\$3.5 MM
Transworld 61	Transworld Drlg.	Transworld design, 2 outriggers, 4 self-elevating columns.	South Africa	High wind and rough water did damage to legs while moving on location. Repaired. See 1974.	\$0.8 MM
		1971			
Ocean Driller	Odeco	Odeco "V-shaped" design.	Gulf of Mexico	Blowout. Slight damage. Repaired.	Insignificant
Zephyr I	Odeco Maersk	Breit "Zephyr" design, 4 columns 2 lower parallel	North Sea	Lost riser system during storm. Repaired.	\$0.2 MM
į		hulls.	!	;	
		<u>1973</u>			
Mariner I	Santa Fe Int'l.	Santa Fe "Mariner design, 6 columns 2 lower parallel hulls.		Blowout. 1 casualty. Repaired. See 1969.	\$2.3 MM

### Structural cracks in leg \$3.0 MM Odeco Maersk Breit "Zephyt" North Sea Zephyr I design, 4 columns, numbers. Repaired. 2 lower parallel hulls. Modified "Penrod Fire in stabilizer column. Unknown Penrod 74 Penrod Drlg. New Zealand Slight damage. Repaired. 70" design, 6 cols, 2 lower parallel hulls, propulsion assisted. Capsized during storm. While Transworld 61 North Sea \$16.4 MM Transocean III Transocean Drlg. design, 2 outpreparing to be moved to Norway 130 mi.off for repairs, unit sank. riggers, 4 self-Orkney elevating cols. Not salvaged. Islands \$7.0 MM North Sea Storm damage. Repaired. Transworld 58 Transworld Drlg. Transworld design, Rectangular hull, 4 bottles ١ Structural cracking during \$0.8 MM Transword 61 Transworld Drlg. Transworld design, North Sea 2 outriggers, 4 selfstorm. Repaired. See 1970. elevating columns 1975 \$1.2 MM Breit Engr. Australia 7-inch structural crack in Margie Atwood Oceanics joint. Repaired. "Zephyr" design, 4 cols, 2 lower parallel hulls

1974

1

1975 (cont.) Penrod 71 Penrod Drlg. Penrod "70" Atlantic Structural damage during storm .SO.8 MM design, 6 cols, Ocean while in tow to North Sea. 2 lower parallel Repaired cracks in metal where hulls, propulsionleg and pontoon joined. See 1977. assisted Mariner 2 Santa Fe Int'l. Santa Fe "Mariner" Gulf of Lost BOP stack in blowout. \$1.5 MM design, 6 cols, 2 Repaired. Mexico lower parallel hulls 1976 Deep Sea Driller Deep Sea Drlg. Aker H-3 design, North Sea High storm winds ran unit \$17.5 (Now Byford (Now Aker Grp.) 8 cols, 2 lower aground while in tow. Three (Pd by ins co) Dolphin) parallel hulls, killed. Declared total loss \$23 MM self-propelled by ins. co. Company only paid (Estimated \$17.5 MM (although unit valued repair costs) at \$35 MM) and Deep Sea retained ownership. Unit sold to Aker Grp. who refurbished it for own use. Despesa Saga Deep Sea Co. Aker H-3 design, Fire on rig caused by minor North Sea Insignificant self-propelled gas leak. Unit evacuated. Repaired. Ocean Rover 0deco Odećo "Ocean 120 mi\_off Collision between rig and \$0.5 MM Victory" design, Aberdeen, fishing boat. One column was 8 cols, 4 parallel holed above water line. Scotland bontoons, self-Repaired. propelled 1977 Penrod 71 Penrod Drlg. Penrod "70" désign, North Sea Structural cracks in joint \$1.0 MM 6 cols, 2 lower damaged previously in storm parallel hulls, (see 1975). North Sea weather propulsion assisted highlighted problem further. Repaired.

		1978			
Sedneth I	Sea Drilling Netherlands	Shell design, rectangular hull, 4 columns	Gulf of Mexico	Blowout. No fire. Repaired.	Not reported
		1978			
Transworld 58	Transworld Drlg.	Transworld design, Shipshape w/2 out- riggers, 4 self- elevating columns	North Sea, Argyll Field	Structural cracks due to fatigue. Repaired.	Not reported
Ocean Endeavour	Odeco	Ocean Victory design, self- propelled	Australia -Bass Straits	Cable snapped dropping well- head to deck. Two men killed, 4 injured. No structural damage. Skid beams to BOP replaced.	Insignificant
Sedco 135	Sedco, Inc.	Sedco tripod design, 3 cols.	Mexico -Bay of Campeche	Blowout and fire. Rig badly damaged. Unit towed off location and sunk by owner. Declared total loss.	\$22.0 MM
		1980			
Sedco 135 C	Sedco, Inc.	Sedco 135 design, 3 bottles	Nigeria	Blowout and a fire. Total loss.	\$18.0 MM (Insurance value)
Alexander Kielland	Stavanger Drlg.	Pentagone design, 5-sided hull, 5 columns	North Sea	Leg collapsed - possibly due to metal fatigue. Unit capsized and sank. 123 men killed. Tota insurance loss.	
		)		<b>S</b>	

# 1980 (cont.)

Henrik Ibsen	Stavanger Drlg.	Pentagone, 5-sided hull, 5 columns	North Sea	Fire caused by welding work being done to convert back to a drilling rig. Damage to engine room. Repaired.	\$400,000
Transworld 58	Transworld Drlg.	Transworld, rectangular hull	North Sea - Argyl Field	Leg damage when collision occurred with supply boat. Repaired.	Not reported
South Seas II (Pai Lung)	People's Republic of China	Aker H-3, self- propelled	China	Damage to pontoons from scrapping bottom. Repaired.	Not reported
		1981	•		
Penrod 74	Penrod Drlg.	Penrod 71 design, retangular hull, 6 columns, 2 parallel pontoons	Philippines	Damaged by coral reef. Damage to thrusters and electrical cables. Repaired.	Not reported

### SEVERE WEATHER AND ABANDON RIG PROCEDURES

Like other offshore drilling contractors, Zapata has a manual detailing appropriate procedures to take in the face of severe weather and other potential disasters. The Zapata manual includes procedures for dealing with a man overboard, fire fighting, rig stability, hurricane preparedness, well blowouts, lifesaving equipment

and procedures, and abandonment of the rig.

In severe northern environment, such as the North Sea or offshore Canada, a rig is abandoned only as a last resort. This is the same procedure used by ships operating in those areas. The reasoning is practical: the icy environment of the North Atlantic or North Sea is so hostile that a man affoat or in a small craft has little chance of survival; he is almost always safer staying with the rig or ship. Severeenvironment rigs are built to ride out virtually any storms that can occur.

An accident like the Ocean Ranger is extremely rare; there have been only two accidents of this type in the history of the offshore industry. The Ocean Ranger was one, and the Alexander Kielland, which sank in the North Sea in 1980 with a loss of

123 lives, was the other.

Rigs are abandoned only in response to highly unusual circumstances. As in the case with ships, the master of the rig makes the determination to abandon based upon his evaluation of the unique conditions at that time. In deciding to abandon a rig, the master must determine that the alternative of remaining on the rig will mean certain death.

Except for hurricanes, a rig is not abandoned for storms. Hurricanes are generally much more severe than most storms, and there is usually several days warning

This is the typical procedure that a Zapata semisubmersible rig would follow if the weather service reported that a storm was on the way:

1. Compare weather report with local conditions.

Check availability of transportation.

3. When rig motion becomes severe enough, suspend drilling and prepare to hang

off drill pipe.

4. Begin preparing rig for storm: tie down and stow all loose equipment; prepare and double check stability calculations for increasing the air gap (the gap between the drill floor and the water) to storm draft. Usually, in storm draft some ballast is pumped out of the rig's pontoons, so it rides higher in the water. This allows bigger waves to pass under the drill floor.

5. Hang off pipe and make preparations to disconnect from the well.

6. Disconnect the riser (the pipe that connects the rig to the sea floor).
7. Slack off the mooring lines. If the lines are too taut, there is a risk that they could snap

8. Deballast and raise the main deck to storm draft before the mounting waves

get near the deck bottom.

9. Prepare to ride out the storm. All hands indoors; all water-tight-hatches

10. Monitor all systems to keep watch for any emergency endangering the rig.

If an emergency arises, correct it if possible.

12. Abandon the rig, only if it is impossible to keep the rig afloat. Abandonment is delayed until the last possible moment.

# WEATHER CONDITIONS SURROUNDING THE OCEAN RANGER SINKING

The following charts show the weather conditions experienced by the Zapata Ugland during February 13-16, 1982. The Ocean Ranger sank on February 15. The Zapata Ugland was working on the Grand Banks approximately 175 miles southest of St. Johns, Newfoundland, in the drilling area designated West Flying Foam L23. This area is located at 47 degrees 2 minutes 43.7 seconds north latitude and 48 degrees 49 minutes 17.15 seconds west tongitude, or about 15 miles from the Ocean. Ranger.

Following the weather tables (Tables 1-4) is a table (Table 5) comparing weather forecasts with actual weather experienced by the Zapata Ugland during February

Table 6 compares the weather during February 14-15 with another severe storm the Zapata Ugland experienced the month before.

# TABLE 1: FEBRUARY 13, 1982

Time	0600	1200	1800	2400
Winds	NW 37-41 kts	WNW 33-41 kts	WNW 24-41 kts	S 10-41 kts
Sea	15*	15†	12*	8'
Temp.	-3*	-6°	-7 <b>*</b>	-6°

kts = knots

# TABLE 2: FEBRUARY 14, 1982

Time	0600	1200	1800	2100	2400
Winds	SEE 44-50 kts	SE 50-57 kts	SSW 80-92 kts	W 70-82 kts	W 66-78 kts
Sea	12'	18'	201	33'	36'
Temp	-4*	+1*	-1*	-3°	-5 <b>°</b>
Maximum Combined Seas	-	-	33'	56'	72'

kts = knots

TABLE 3: FEBRUARY 15, 1982

Time	0100	0200	0300	0400	0600	noon	1800	2000	2400
Winds	W61-79 kts	W56-76 kts	W61-69 kts	W56-68 kts	W54-68 kts	WNW52-60 kts	SWNW50-54 kts	WNW45-51 kts	3 WNW42-47 kts
Seas	32'	30'	34*	28*	28*	26'	24*	23'	20'
Temp	-5 <b>°</b>	-5°	-5°	-5°	-6°	<b>-5</b> *	-6°	-6°	-7°
Maximum Combine Seas		49'	57	47'	46'	43'	40*	381	34'

kts - knots

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TABLE 4: FEBRUARY 16, 1982

Time	0600	1200	1800	2400
Winds	W 33-42 kts	SWS 18-42 kts	SSE 28-29 kts	NWW 40-42 kts
Seas	16'	18'	14*	18'
Temp	-7*	-4°	-2 °	-1°
Maximum Combined Seas	28'	34'	31'	34'

kts = knots

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# TABLE 5: COMPARISON OF ZAPATA UGLAND ACTUAL VS FORECAST

		ζ	!		i	
FORE	CAST	UGLAND ACTUAL	FORECAST	UGLAND ACTUAL	FORECAST	UGLAND ACTUAL
2030 HR	S FEB. 13	(2000 HRS)	1430 HRS 2-14	(1400 HRS)	2-15 0230 HRS	0200 HRS
<u>Wind</u>						
Direction	s	NUW	SW	s	W	w
Speed	10	23	55	56	60	56
Max Speed	. 15	41	70	62	75	76
		<u> </u>				•
<u>Sea</u>						:
Height	2	12*	13'	18*	22*	30'
Max Ht	3	-	22'	-	39'	-
Maximum Combined						
Seas	-	-	-	30*	-	491

TABLE 6: COMPARISON OF JANUARY 16 STORM VERSUS FEBRUARY 14-17 STORM

	1200 - Jan. 16	0100 - Jan. 17	2400 - Feb. 14	0200 - Feb. 15
Wind	SW 68-76 kts	W 56-69 kts	W 66-78 kts	W 61-69 kts
Seas	57'	42'	36'	30'
Temp	0*	+1*	-5°	-5*
Maximum Combined	<b>~</b> ·			
Seas	-	-	72'	531

kts = knots

Mr. Jones. Thank you, Mr. McIntosh. The Chair now recognizes Warren Sexton.

## STATEMENT OF MR. SEXTON

Mr. Sexton. Mr. Chairman, gentlemen, my name is Ralph Warren Sexton. I am employed by SEDCO, Dallas, Tex., as a vice president in SEDCO's drilling division and have been with SEDCO for over 16 years. My area of activities is that of operations of our drilling equipment in North and South America and South Africa.

SEDCO has owned and operated semisubmersible offshore drilling units since May 1965. At the moment, we have 20 semisubmersible drilling units in operation, 7 more presently under construction, and 3 drill ships in operation. This constitutes our floating drilling fleet.

Our floating drilling fleet has accumulated a total of 231 rigyears of operation up until the first part of this year. Twenty-two and a half of these rigyears of operating experience have been offshore Canada; two rigyears offshore western Canada, and the remainder offshore eastern Canada, primarily on the Scotian Shelf and the

Additionally, in another well-known harsh weather environment,

the North Sea, we have accumulated 51 rigyears of operations.

The SEDCO 706 was designed by Earl and Wright of San Francisco, was built at Kaiser Shipyard in California, is ABS certified and classed for unrestricted sea service, and meets ABS environmental design criteria as relates to environmental conditions as follows: winds of 100 knots, 110-foot waves with an 18.8-second period, and a current of 2.4 knots, all colinear.
We remain moored on location with 8 30,000-pound LWT an-

chors, each connected to the rig by 4,000 feet of 3-inch chain. The SEDCO 706 drilling unit is owned by SEDCO Maritime, Inc., a wholly owned subsidiary of SEDCO, is a U.S.-flag vessel and as such is certified, documented, and inspected on a regular basis by

the U.S. Coast Guard and ABS.

Members of each of these two organizations were recently onboard our unit in Mortier Bay in Newfoundland, as we are at present undergoing an inspection. Our last inspection by these agencies

was conducted in September 1981.

Although some of our floating drilling units are non-U.S.-flag vessels, all conform to rules and regulations set forth by the International SOLAS Convention of 1974 and the updated ABS of Lloyds Registry and are generally in accord with U.S. Coast Guard specifications.

In eastern Canada, we have found that storms which create waves in excess of 40 feet can be expected approximately four times each year. During our 20-plus rigyears of operating in the cold, rough waters off eastern Canada, we have never experienced a SEDCO employee fatality aboard any of our units that was weather related. Our SEDCO 706, now offshore Newfoundland, has been operating there for just over 2 years. As of Thursday, March 4, 1982, this particular rig operation has gone 631 days without a lost-time accident, an enviable record and one of which we are quite proud.

It is our experience, particularly in the winter months, that in eastern Canada one can expect storms just as a matter of routine. Even though wave heights during the storm of February 14 and 15, 1982, exceeded 40 feet for just over 24 hours, and the peak of the storm yielded wave heights between 55 and 60 feet, accompanied by wind gusts just in excess of 90 knots, and a maximum sustained wind of 1-minute duration of 70 knots, none of these values came close to establishing new records as far as our experience is concerned with rough sea conditions.

As an example, in the late 1960's, while operating off western Canada, one of our semisubmersible units experienced a 95-foot wave accompanied by winds in excess of 100 knots while moored on location in 550 feet of water. This unit was brought into protected waters after the storm abated, and a thorough inspection turned up no significant structural problems or damage to equipment on

board.

As semisubmersible, offshore drilling units offer a far more stable floating drilling environment than do ship-shaped hulls. They are more often selected for known harsh weather environments by our customers. And, since we clearly have many more semisubmersibles than ship-shaped hulls, most of our floating drilling experience has been in the harsh weather environment.

Thank you very much.

Mr. Jones. Thank you, Mr. Sexton.

I say to the committee members who have come in the room since we convened the meeting, the Chair announced on convening the meeting that we would abide by the 5-minute rule; it is invoked today in order for all members of the committee to have an opportunity to ask whatever questions they may see fit within the limitation of their time.

At this time we will question the three witnesses. You may direct your questions to any one of the three or all three, whichever you see fit. Mr. Kelly, I have a couple of questions, if you don't

mind, sir.

Our committee's information is that ODECO is the owner and operator of the Ocean Ranger, with full control of all operations. Yet press reports out of Canada consistently quote spokesmen from Mobil rather than ODECO. The question is, who exactly had operational control over the Ocean Ranger?

Mr. Kelly. Well, that has to do with the relationship that exists between the customer and the contractor. In this case, the custom-

er is Mobil Oil, and we are the contractor.

Now, we enter into a formal agreement which is typical of the oil field—it has grown up that way—in which the customer hires us to provide all of the men and materials to accomplish an objective in drilling.

The securing of those materials, the training of the men, the equipment, it is owned by and operated by the contractor. That is his responsibility. His responsibility is to the customer to perform,

as an independent contractor, what is asked of him.

Now, of course, as a contractor, you are subject to the regulatory bodies, as everyone else is; indeed, the U.S. Coast Guard or what have you as to wherever you are. You may be regulated independently. Now, Mobil, on the other hand—and our company's two

principal lines of business are offshore oil and gas production and contract drilling, so we do understand it—has the license or the lease to explore for oil. They have certain property rights there. They are responsible in this case directly to the Government in following through in their original license or grant.

The Government also insists that they exercise certain standards in drilling the well—the casing program, the mud program—much like the U.S. Geologic Survey does for us. They look after the well

and the Coast Guard looks after the rig.

So Mobil has a primary responsibility to Government to see that they conduct a safe operation out there. In a typical situation like this, it is their property and their well, and I would think, typically, they are the ones that meet with the press. We just do not have any high-powered press relations in that sense, and we have avoided radio and TV and all of it because we don't know what to do with that.

So I think it is very normal and natural that they should respond because the Government looks to them, basically-they are the ones that got the license—to respond to the press. But the men and the rig; they are the contractor's.

Mr. Jones. Thank you, Mr. Kelly.

Does ODECO or any other party have copies of the radio logs covering February 14 and 15, and can the committee be provided

transcripts if you do have them?

Mr. Kelly. Yes. We may have them, but the U.S. Coast Guard has all of this. They are party to that hearing up there, and they have everything that anybody has. We are just one. You have the Federal Government of Canada, the Provincial Government of Newfoundland, the U.S. Coast Guard, Mobil, and ODECO. So you already have that.

Mr. Jones. Fine. We will contact the Coast Guard. Thank you,

One final question, Mr. Kelly. How many bodies have been recovered thus far?

Mr. Kelly. Twenty-two.

Mr. Jones. Twenty-two. Now, were these men clothed and outfitted properly for any evacuation?

Mr. Kelly. Some of the men-I think all of the ones they found had life preservers. Some had the so-called survival suits as well.

Mr. Jones. Here again we are dealing with rumors, perhaps, but is it true that some of the bodies were clad only in underclothes? Mr. Kelly. I am not aware of that.

Mr. Jones. You cannot answer that.

Well, thank you very much, Mr. Kelly. The Chair recognizes Mr. Snyder from Kentucky.

Mr. Snyder. Thank you, Mr. Chairman.

Mr. Kelly, when did the Ranger switch from Panamanian flag, to American flag?

Mr. Kelly. I think around December of 1979.

Mr. Snyder. Was it necessary for it to get a drydock inspection to do that?

Mr. Kelly. I think so, I don't know that it was a drydock; it may have been a survey in lieu of a drydocking, but they did structurally inspect the hull.

Mr. SNYDER. Has it ever had a drydock inspection since it was built?

Mr. Kelly. I would have to check on that. No.

Mr. SNYDER. And how old is it?

Mr. Kelly. Six years old.

Mr. SNYDER. Is it customary for MODU's to have drydock inspec-

tions during the course of 6 years?

Mr. Kelly. Well, it depends on how the rigs are classed. I think all but one of our rigs are classed by the American Bureau of Shipping. They have, I believe, every 4 years, a structural inspection.

Mr. SNYDER. By Coast Guard and ABS, or by either one?

Mr. Kelly. In our case, all except—we had, until the Ranger, 40 rigs, and all are ABS except one. Some are Coast Guard; some are not. Some are U.S.-flag vessels and some are not.

Mr. SNYDER. What about the Ranger?

Mr. Kelly. The Ranger was a U.S.-flag vessel---

Mr. Snydep. I am aware of that.

Mr. Kelly [continuing]. And also ABS classed. And all of the inspections of the American Bureau of Shipping were current.

Mr. SNYDER. What about the Coast Guard inspections? Were they

current?

Mr. Kelly. No. There was one that was not.

Mr. Snyder. How often is the Coast Guard supposed to inspect the vessel?

Mr. Kelly. Well, it depends on the inspection. This one was due December 27.

Mr. Snyder. Is it their responsibility to come out there on or before December 27, or is it your responsibility to ask them to come?

Mr. Kelly. I think there has been some—

Mr. Snyder. I am not trying to indict you. I don't know.

Mr. Kelly. No, no. Again, I don't, either, to tell you the truth. I would say that we have regarded it basically, whether we are right legally, as our obligation to see that that is done.

Mr. Snyder. But you didn't do that in this case?

Mr. Kelly. No. Would you like an explanation of that? I would

like to give one.

Mr. SNYDER. Well, I think you are entitled to give one, even if it is on my time, because that is one of the purposes of this hearing—to clarify the events surrounding the Ocean Ranger. If you consider it your obligation to notify the Coast Guard and you did not, then somebody ought to know why.

Mr. Kelly. All right. Well, I hope we do not exceed the 5-minute rule, but there has been a lot about this, and I would like to re-

spond to it.

Mr. Snyder. If the explanation is going to take a long time and go beyond 5 minutes, I will get unanimous consent to allow you to put it in the record.

Mr. Kelly. Well, I do not have anything written; that is my

problem.

Mr. Snyder. All right.

Mr. Kelly. We knew this inspection was coming, and again, first to step back a bit, we had ABS current approvals. We conduct our own inspections as well. The Energy, Mine, and Resources people

inspected the rig within a week of the mishap. It so happens also that in October of 1981, we had a Lt. Comdr. T. W. Portell aboard the rig. He was completing his training with the Coast Guard. He had been assigned to certain of ODECO rigs.

He wrote a report on November 4 which we received and which the U.S. Coast Guard had. I would like to read what he had to say:

After a few days in St. Johns, Newfoundland, observing the ODECO land support operation, I traveled to the world's largest semisubmersible, the Ocean Ranger. As expected, I was amazed at the physical size of the rig. In addition, the outfitting for cold weather by enclosing the cellar deck and drill floor even makes the size seem

larger than it is.

The Ocean Ranger is U.S. inspected and certified. During my visit, I performed an informal inspection for certification to assist the rig in preparation for the formal inspection due in December. Even after such a thorough examination, I have to agree that the Ocean Ranger is the queen of the ODECO fleet. The attention to detail in all aspects of design, maintenance, housekeeping, and operation was truly surprising.

So we had every reason to suppose that on December 27, we could——

Mr. Jones. Excuse me just a minute, Mr. Kelly.

The gentleman from Kentucky's 5 minutes has expired. However, the gentleman from New Jersey yields his 5 minutes to the gentleman from Kentucky. The gentleman from Kentucky will proceed.

Mr. Kelly. Yes, sir. I appreciate that very much.

So we had every reason to think that in December we could pass that with flying colors. There was no fear of that. Why didn't we do it? Well, these are operating people. They are not lawyers; they are not administrative people. They had decided, during the 2-year period, to upgrade the lifesaving capacity of the rig.

Under the Coast Guard approval of that rig, we had two 52-man lifeboats, one on the forward and one on the aft end. They decided they were going to double that capacity, even though it was not required by the regulations, even though it could have passed the in-

spection without these two additional lifeboats.

So they purchased two Watercraft 58-man boats. There is a good reason for it. If you had a fire on one end, you would not have the capacity that you would, so we wanted to double the capacity. And they had installed the third boat, the Watercraft boat, the Friday before the accident. The fourth boat was lashed to the deck and could only be installed—the davits were ready—by lowering the boat into the water. The weather would not permit it.

The Watercraft man had inspected that third boat that Friday and left. The Coast Guard was en route to make the inspection, but our people wanted them to see and inspect four, not two, boats. They could have easily, if they were legal about it, they could have done this in November or December. But they were working on

this project to increase the lifesaving capacity of the rig.

We had good intentions; we had honorable intentions. We failed to do it in an administrative or legal way. We are not frivolous about it; we are not indifferent to it. On the contrary, we are concerned about it. And, remember, these two extra boats were over and above what was required.

Now, it did no good. We lost all these good men. But I guess I am glad they had at least an additional boat to try to get away from

whatever was happening to them.

Mr. SNYDER. Mr. Kelly, while I've got some of Mr. Forsythe's time left, I would like to go to a little different subject. As you indicated, of course, much if not most of your testimony is based on reports and what you have heard and may be contradicted later on when all the facts are in. With that in mind, I would like to know if you are familiar with a report that Canadian Member of Parliament James McGrath said on February 23 that Mobil Oil of Canada instructed a rescue helicopter not to land on the Ocean Ranger an hour after the crewmen took to the lifeboats. This indicates that they were still able to land there 2 hours after the Mayday signal?

Mr. Kelly. I am aware of that. I have read that. I am also aware of the testimony of the two pilots, helicopter pilots, involved, where they were fairly categorical about it. There were no instructions like that at all, no inhibitions. They were told to do all they could, and they did. They tried to get out there. When they first opened the hangar and put the 'copter out there, it was blown down the

Anyway, their testimony, which is the only thing I know about

in the hearings so far ---

Mr. SNYDER. You indicated in your testimony that some conversations on the Ocean Ranger were picked up by some of the adjacent rigs at 7:30 or 8 o'clock the night before. Being unfamiliar with this situation, it sounded to me like they must have evidenced a destabilization of some kind at that time. Is that a logical conclusion?

Mr. Kelly. Well, that is certainly the area that we have to look at, and whether we will ever truly know, I do not know, but we will get to examine the wreck, possibly refloat it. There will be a way to look at all of those valves and compartments. But everything we know would point in that direction—a stabilization problem.

Mr. SNYDER. You told us about the location of the control room down from the main deck. How far is it from the water level when it is in this configuration?

Mr. Kelly. That ballast control room?

Mr. Snyder. Yes, sir. Mr. Kelly. Well, I would think it is—level, I guess, it would maybe 30 or 40 feet, but of course you are in a storm condition and the barge is rolling, and those waves obviously were slamming against it. It is a 2-inch porthole and can withstand water, but there could have been some debris out there that smashed it. It was smashed; there is no doubt about that.

Mr. SNYDER. Mr. Chairman, thank you.

Mr. Jones. The Chair recognizes Mr. Breaux.

Mr. Breaux. Thank you, Mr. Chairman.

I would like to thank the panel for their statements, particularly you, Mr. Kelly, because I know that it is a very difficult thing for you to discuss. I think your statement was excellent.

I would now like to address the role of the Coast Guard in the certification of inspection process. This committee is going to be fo-

cusing on recommendations for changes in the law.

I think the law is fairly clear in section 497 and section 391 of title 46 of the U.S. Code which state that the head of department in which the Coast Guard is operating shall require the Coast Guard to inspect, before the hull is put into service and at least once in every 2 years, the hull of each steam vessel not carrying passengers to determine if the structure is suitable for the service in which she is to be employed and is in a condition to warrant the belief that she may be used in navigation with safety to life. One of the areas that the Coast Guard is supposed to look at under the rules and regulations is the weathertight integrity of various appliances including weather-tight doors and hatches.

The Coast Guard definition of weathertight is that water will not penetrate into the unit in any sea condition. It goes on to elabo-

rate.

At the very top of the certificate of inspection, which was issued for the Ocean Ranger after the Coast Guard looked at the weather-tight integrity of this unit, is typed "This certificate expires, 27 December 1981." I understand that this certificate is supposed to be posted on the vessel.

Mr. Kelly, is the Coast Guard required to notify you prior to the

time that a Coast Guard certificate of inspection expires?

Mr. Kelly. I do not really know that, Congressman. We regard that as our primary obligation to maintain our rigs in class, whether it is ABS or U.S. Coast Guard. What the internal rules with the Coast Guard are, especially when these rigs are in foreign waters—

Mr. Breaux. But you received no letter or phone call or post card?

Mr. Kelly. No, that is something we—see, we need to reserve that for the inquiry because I do not have the direct knowledge as to what they might have said to each other on the telephone. Obviously, the Coast Guard knew of our boat installation, that it was coming up, and what they told our people or what our people told them, I do not really know.

Mr. Breaux. Is it a company policy to wait to hear from the Coast Guard that your certificate of inspection has expired, or do you, as company policy, initiate a request to recertify that certifi-

cate?

Mr. Kelly. The latter. We initiate it. We regard it as something we have to do and, as a primarily responsibility, we attempt to do that.

Mr. Breaux. Mr. McIntosh, what about Zapata?

Mr. McIntosh. As far as I know, we also keep a calendar of those sorts of things and prepare for the inspection. The Coast Guard may contact us; I do not know.

Mr. Breaux. Mr. Sexton, is that your company's policy?

Mr. Sexton. The same applies with us.

Mr. Breaux. Are any of your companies' rigs operating right now in a noncertificated or expired certificate mode?

Mr. Kelly. Not as far as I know.

Mr. McIntosh. I am not aware of it.

Mr. Sexton. Nor am I aware of it with our company.

Mr. Breaux. That indicates that you are not aware of it. You cannot definitely tell us that in fact all of your rigs are currently updated as far as inspection certificates are concerned?

Mr. McIntosh. The operating man that I have with me this morning indicates that we are, but we would have to confirm that.

Mr. Breaux. Wouldn't you agree that this is probably one of the most important pieces of paper as far as the safety of that rig is concerned?

Mr. Kelly. Congressman, if I could ask you, I think you and everyone else should reserve your judgment on how significant that expired expiration is as to how it bears on what happened. Probably not at all. Now, it may well have a lot of importance as to dealing with your policy towards the Coast Guard and how you conduct these things.

Mr. Breaux. Well, of course, that is the reason why we are pur-

suing it.

Mr. Kelly. Yes, but I think as to how it bears on this accident, I would hope you would reserve judgment on that.

Mr. Breaux. That is not the question at all; I agree.

Mr. Jones. The gentleman's time has expired. Does any member on the majority side care to yield his time to Mr. Breaux?

Mr. Breaux. That is all right.

Mr. Jones. Mr. Breaux has concluded.

The Chair recognizes Mr. Lent.

Mr. Lent. Thank you, Mr. Chairman.

Mr. Kelly, according to the February 22 edition of the Oil and Gas Journal, Mobil Canada indicated that the well being drilled by the Ocean Ranger had a cement plug in it; that the drillpipe was up and the hole was plugged. Is this the usual procedure when storm warnings are heard?

Mr. Kelly. Yes, sir. The well was secured for the storm. The blowout preventer system was closed. Incidentally, that well was inspected by the camera, the underwater camera tape that you have, and it was found to be completely secure without any pollu-

tion.

Mr. Lent. This plugging the hole, as I understand it from you, is

the usual procedure, then, when storm warnings are heard.

Mr. Kelly. Yes, sir. Well, they shut in the blowout preventer system, and that maintains it, and then they disconnect from the well so that the rig is moved off the well, so there is no danger of the rig moving over the well during the storm.

Mr. Lent. Do you do the same thing in the Gulf of Mexico?

Mr. Kelly. Yes, sir.

Mr. Lent. When there are storm warnings?

Mr. Kelly. Yes, sir.

Mr. Lent. When was the plug put in, so far as you are able to determine?

Mr. Kelly. Well, the preparations were underway at 7:30 p.m. When they actually accomplished it, I do not know. But that they did accomplish it is, I think, confirmed by the underwater survey that was made later.

There was no cement plug here. We had hung off the pipe, but

the purpose of the thing is the same.

Mr. LENT. Yes.

Statistically, the Newfoundland area experiences the most violent weather conditions along the east coast, and it appears that this storm was not a freak event.

Can you tell us what the usual procedures are when storm warnings are received in the area and how those procedures might differ, if at all, from storm warnings in other areas such as the Gulf of Mexico?

Mr. Kelly. Well, I think the well procedures are pretty well standard. They would disconnect from the well, close the preventers, move the rig off the well, tie down everything they can, and secure for the storm.

Mr. Lent. So you do not make any special safety requirements

for vessels operating in so-called icy areas?

Mr. Kelly. Well, there are, and this rig was equipped for cold weather operations. The steel itself was of that nature as well as the insulation, and so on, for the crew.

Mr. LENT. According to the manning requirements for the Ocean Ranger as specified in the certificate of inspection, when the vessel is under tow in a local area or it is moored in location, the required crew is one master with a special industrial license, two able seamen, and one ordinary seaman, as well as seven certified lifeboatmen at all times.

Can you tell us what type of training is required for the master with the special industrial license, and whether this person was in

charge when the vessel was moored?

Mr. Kelly. Well, the master in this case had Coast Guard-approved papers. He was a master for some 25 years. He has been with the company for a year. Typically, he is in charge when the rig moves from one location to another because it is totally a maritime operation. Once it gets to location and the anchors are run, then he is subordinate to the tool pusher, who is the headman. He is his principal maritime adviser, but then the well becomes the central problem, and the rig is just moored up there. As far as maritime problems, the captain would presumably want to be his principal adviser in those matters.

Mr. Jones. Mr. Oberstar? Mr. Oberstar. Thank you, Mr. Chairman.

I have a question about the personal lifesaving capability of this rig and the measures that were taken for the personnel onboard the rig.

First of all, were there available the floatable personal lifesaving

rigs in addition to those four lifeboats that you mentioned? Mr. Kelly. There were ten 20-man liferafts as well.

Mr. OBERSTAR. Ten 20-man liferafts.

Mr. Kelly. Yes.

Mr. OBERSTAR. But were there any of the survival capsules? We have had testimony about these in our committee for several years

from the Coast Guard, and we have seen them.

Mr. Kelly. Yes, I know what the capsules are. We have some of those on our rigs and platforms around the world. That is just an equivalent to this covered lifeboat, and both are Coast Guard-approved measures. I don't know how they feel about one or the other, but there were no capsules as such.

Mr. OBERSTAR. You did not have those available?

Mr. Kelly. These were lifeboats.

Mr. OBERSTAR. What about survival suits for the crew onboard

the rig? Were there survivor suits for all of them?

Mr. Kelly. The so-called survival suits—I do not know, really, what they were like, these particular ones, but neither the Canadian nor Coast Guard rules require a survival suit as such. The only requirement on survival suits is for people that ride helicopters, and there were survival suits aboard our rig for helicopters. Some of the bodies they found had these suits on. So I do not know the number of survival suits that were there, but it was a number that was to meet the requirement for helicopters and not for the number of men aboard.

Mr. OBERSTAR. As a matter of standard procedure, you do not

provide survival suits for all of the crew onboard a rig?

Mr. Kelly. That is right. I understand that—it is interesting—in that same storm, a Russian freighter went down. Apparently, they had these so-called survival suits, and I do not think they helped very much. Just a few minutes in the water.

But anyway, I put these things on when we fly in 'copters and I know about that, but there is no requirement, Coast Guard or Ca-

nadian, for a special kind of a suit.

Mr. OBERSTAR. And only some of the bodies found had those suits on. Is it your experience in your company that survival suits don't provide much protection?

Mr. Kelly. It is not an experience; it is just a conclusion we have

reached. We have not looked at it in great detail.

Mr. OBERSTAR. In those waters under those conditions of cold and anticipated extended exposure, survival suits provide some kind of protection or something, don't they?

Mr. Kelly. Oh, yes. I wish that they had anything that could be

provided.

Mr. OBERSTAR. Are the crew trained in how to get these suits on, and are they stationed appropriately?

Mr. Kelly. When they ride helicopters back and forth, yes.

Mr. OBERSTAR. Only for helicopter service?

Mr. KELLY. Yes.

Mr. Oberstar. Not for your regular——

Mr. Kelly. Not under the Coast Guard or Canadian rules.

Mr. Oberstar. A question that came to my mind in the course of your description of the rig and the location of the porthole near the control room, just as a design matter, it seemed to me not to make a great deal of sense to have a design where you have a porthole near so sensitive a control area. Perhaps you could explain that.

Mr. Kelly. It has occurred to me, too, in looking at it. There is a reason for it. It has been that way for a lifetime of dealing with these rigs. It is there so they can see the well and they can see the action of the cranes in bringing supplies aboard. But we have never had such a freak incident. It is as simple seamanship as closing that—there is a storm hatch there. As I say, when we get into it, you will see, not at this hearing, I would hope, that there are other procedures to deal with the problem they had.

But, nevertheless, it is something that never has happened in our experience. Like you, yes, I guess you could put that thing up way high where a wave would never see it.

Mr. Oberstar. Or some protection for a porthole like that to protect against that one freak accident that we have never experi-

enced.

Mr. Kelly. There is protection. You see, there is a metal hatch. All you have got to do is drop it and then close it and block it.

Mr. OBERSTAR. Somehow it never dropped?

Mr. Kelly. And they didn't do it. They did it after the fact. It is a simple act of seamanship.

Mr. OBERSTAR. Thank you very much. My time is up.

Mr. Jones. The Chair recognizes Mr. Emery.

Mr. Emery. Thank you very much, Mr. Chairman. I believe my colleague, Mr. Shaw, was here before I was.

Mr. Jones. If the gentleman will yield, we are going by the listing on the rollcall sheet, seniority.

Mr. Emery. Thank you very much, Mr. Chairman.

Mr. Shaw. Appreciate seniority when you have it. [Laughter.]

Mr. EMERY. I will take the gentleman's advice.

Mr. Kelly, I wonder if you can tell me whether the control room was above or below the water level, and if it was either way, how high?

Mr. Kelly. It would be above the water level. Let me just ask my colleague. It would be at 112 feet, and the water level would be 80 feet. But, of course, we were in a storm condition.

Mr. EMERY. So the sea would at times be——

Mr. Kelly. Oh, yes.

Mr. EMERY. Now, the porthole in question was how high above the water level under calm water conditions?

Mr. Kelly. In no storm conditions?

Mr. Emery. In calm water conditions.

Mr. Kelly. Well, that is 112 feet, and the water is at 80 feet. So it is 32 feet above it.

Mr. EMERY. So in other words, the porthole was essentially in the control room itself and not adjacent to it.

Mr. Kelly. Pardon?

Mr. EMERY. The porthole that we are talking about was in the control room?

Mr. KELLY. Yes.

Mr. EMERY. Just for a second, discussing the design of the platform, do you think that it is a good idea to have a porthole in the control room? Might it be considered a design flaw, possibly, to have a porthole in such a place where possible breach might lead to water intake?

Mr. Kelly. Well, I would say, on all the rigs that we have, we have a pneumatic system. We do not have electrical systems there. That is an electrical system. It is the only one we have.

Surely we could put the hallast room in a different

Surely we could put the ballast room in a different place much higher and away from it, but again, it is almost a simple act of seamanship. There is a storm window there that you would close.

Mr. Emery. Except that if the porthole is somehow destroyed, as

this one apparently was——

Mr. Kelly. Yes, but the metal protector is designed for the destruction of the glass itself, and it was not in place.

Mr. EMERY. That metal shield was in place, but---

Mr. Kelly. It was there, but they had not closed it, and they had been in heavy seas for some time.

Mr. EMERY. Was there a reason that that was not closed?

Mr. Kelly. I have no idea. As I say, I think it is just a simple act of seamanship to secure that, and it obviously was not done.

Mr. EMERY. And you do not have any evidence whether or not an

attempt was made to shut that?

Mr. Kelly. Oh, no, no. I have no detail like that.

Mr. Emery. A second question. I believe you suggested that after salt water had interfered with the electrical system, apparently valves moved to the open condition, thus allowing greater water intake into the system. Is that essentially correct?

Mr. KELLY. Yes.

Mr. EMERY. Was there consideration given to the design of the electrical components that would require that the valves would

shut rather than open under such a condition?

Mr. Kelly. Yes. There are many failsafe—again, I think it is premature, and what you really need are expert people to testify on this, but there are ways to bypass that panel. There are a lot of things that they can do to operate the valves manually without the panel. That is the only thing we know about at this point, though.

Mr. EMERY. But is there any mechanism that you are aware of that would automatically shut those valves to prevent water intake, given a condition where no individual was able to control it

manually?

Mr. Kelly. Yes. For instance, if there is an electrical failure,

their failsafe closes all compartments.

Mr. Emery. So apparently there was some sort of a flaw in the failsafe mechanism. I mean, obviously, this is speculation and I don't mean to put you on the spot.

Mr. Kelly. Well, I think the board was malfunctioning. Again, I do not think it was—the board at the point of the report was cut

off.

Mr. Emery. And, finally, is it proper to assume that in all cases it is better for those valves to be shut under certain conditions instead of open under that condition?

Mr. Kelly. Well, it depends on what they were trying to do, what they were trying to achieve at that time. But in a perilous

situation, yes, you try to freeze the situation.

Mr. EMERY. If the goal is to keep water out, then it is better to

have the valves shut rather than open?

Mr. Kelly. Well, that is true unless you have, let's say, a severe list in one direction and you want to counterflood in the other. In that case, it would be better to take water on the other side. It just depends on your mode, obviously. If you are in a level mode and you are not taking any weight on or off——

Mr. EMERY. Is there a way to pump water out of one side with

the valves closed?

Mr. Kelly. Yes. They would be able to. With the valves closed?

Mr. EMERY. Yes.

Mr. Kelly. Well, they have got to open the compartments to remove the water.

Mr. Emery. Thank you very much, Mr. Chairman.

Mr. Jones. Mr. Tauzin, the Chair recognizes you, sir, for 5 minutes.

Mr. Tauzin. Let me thank you again for appearing under these

circumstances, gentlemen, and for your testimony.

Mr. McIntosh, let me also express my appreciation for a very excellent document. It contains a great deal of basic information, I

think, on the subject.

On page 26, you discuss the liferafts and lifeboats. Coming from an area where there is a great deal of offshore activity in the Gulf of Mexico, where there have been accidents of a similar nature in storms, where workers have not, in some cases, survived the stormy conditions in life equipment, I would like to explore this area just a bit with you.

What is the best state of the art right now in the lifeboat or life-

raft area?

Mr. McIntosh. As far as we have found, the covered lifeboat or the so-called capsule, which is another form of covered lifeboat, appears to be the state of the art at this time.

Mr. Tauzin. Are they equivalent, or is there an advantage of one

over the other?

Mr. McIntosh. As near as we can tell, they are equivalent.

Mr. Tauzin. Are you aware of any ongoing experimentation or work being done to improve the lifesaving capabilities of these types of craft?

Mr. McIntosh. I am aware of manufacturers saying they have

such work underway. I have seen nothing firm yet.

Mr. Tauzin. In regard to the severe weather and abandon-rig procedures you discuss on page 56, you indicate that, unlike the Gulf of Mexico operations, where you receive normally several days' warning of a hurricane, which is normally a much more severe storm than you might encounter under these conditions, that in the North Sea, in deciding to abandon a rig, if I might quote you, "The master must determine that the alternative to remaining on the rig will mean certain death"; under those types of conditions, where abandoning the vessel is at this extreme point, are simple liferafts of any use at all to men trying to survive under those conditions?

Mr. McIntosh. Well, that is probably open to a lot of opinion from different people. I think it would be our judgment that in severe storms in freezing waters, a simple liferaft would be of very

little use to you.

Mr. TAUZIN. So that having a liferaft on a vessel operating in the North Sea is almost rather vestigial; it is almost useless to the men, is that correct?

Mr. McIntosh. In terms of winter storms, very, very limited use,

Mr. TAUZIN. Are liferafts of this type useful in the Gulf of Mexico in its operations for stormy conditions?

Mr. McIntosh. We do equip rigs; all the rigs have these as additional equipment.

Mr. TAUZIN. That is in addition to the either covered or the capsule vessel?

Mr. McIntosh. Yes.

Mr. TAUZIN. What is your opinion of the usefulness of the liferaft

in the Gulf of Mexico conditions?

Mr. McIntosh. The water temperatures, of course, are much warmer. They are certainly useful, but there again, in the winter, exposure, extended exposure during the winter period could also be fatal.

Mr. TAUZIN. And lastly, is there any effort on the part of industry such as yours to test the versatility and usefulness of that type

of equipment, or is all that done by the manufacturer?

Mr. McIntosh. I am not certain there, but we largely choose equipment that is Coast Guard approved, and both of these covered life crafts and capsules are Coast Guard approved.

Mr. Tauzin. Thank you, sir.

Mr. Kelly, one last inquiry. Do you have evidence yet that the men who lost their lives on the Ranger took advantage of any of the three lifeboats that were on board the vessel?

Mr. Kelly. Yes. They have received testimony that one of the boats was seen with men in it by the standby boat?

Mr. Tauzin. And has that boat been recovered, sir?

Mr. Kelly. Yes. That boat was recovered. They have recovered two boats and part of a third.

Mr. TAUZIN. Thank you.

Mr. Chairman, I yield back the balance of my time. Mr. Jones. The Chair recognizes Mr. Shaw.

Mr. Shaw. As I understand your testimony, you say that the latest state of the art with regard to covered lifeboats is not really adequate to deal with the situation which we found ourselves with in the Ranger. Is that a correct summation of your testimony?

Mr. McIntosh. Yes, it is.

Mr. Shaw. Is there any type of life saving equipment that could have been aboard, that was not aboard, that might have prevented

this tragedy or may have produced some survivors?

Mr. McIntosh. Well, I will ask either of my copanels this morning to comment, but I am not aware of any equipment that would be considered superior to what the Ranger had on board or what we had on our rig. I am not aware of any such equipment available at this time.

Mr. Kelly. I think this problem of life saving gear, if you could, for a moment, remember that we have been sailing ships for thousands of years and the problem of transfering off a ship to another ship, if you are any kind of sailor you will know that in any kind of sea there is a problem. It is no different aboard that Russian freighter than it was aboard the rig. It is just the nature of the sea. It is extremely difficult in heavy seas and a big storm to get safely off a rig. Imagine launching a 42-foot lifeboat in a 50-foot sea. It really requires great seamanship to accomplish it. So, again we are putting demands on that rig that we do not do with ships.

What that thing is really designed for is to get you from a very high position into the water, in the event of a blowout, but it assumes a reasonable break from the seas. Nowhere in the world the Russians do not have it and neither does anybody else—is there a way to get off a structure at sea in a completely safe and assured manner.

Mr. Shaw. What was the time lapse between the first time that it was known that the Ranger was going to go down and the evacuation order and then the final submersion?

Mr. Kelly. It was about 1:30 that they evacuated and there were no further communications from the Ranger and the time elapsed was an hour and a half. It was about 3 o'clock when it disappeared from radar.

Mr. Shaw. Is it correct to say that we only have evidence that only one of the lifeboats came off manned?

Mr. Kelly. Yes, as far as I know. Very definitely one of them did

and they recovered a second one and a part of a third.

Mr. Shaw. What is the training process that takes place on board as far as drills for this type of evacuation and how often do these take place?

Mr. Kelly. Fire drills and abandon barge drills are conducted weekly. The safety representative, and we have one assigned to every crew change coordinates with the captain and the senior two pusher to assure proficiency of these drills.

Abandon ship drill includes having each man report to his assigned station in his lifevest. The extent of the drill is attendant upon weather conditions and at times includes lowering the survival craft to the water and an excursion around the rig.

The usual drill requires starting up the engine and having crew members enter the craft and buckle themselves into the seats.

Mr. Shaw. From the information you have, has this procedure been followed as dictated and on the prescribed time schedules?

Mr. Kelly. Yes, sir. We have internal reports and, as I say we have the safety representative on every rig. You have the off-duty crew in this case it is a 28 and 28 rig and they will be subject to examination on this point as well. As far as we know we did that.

Mr. Shaw. Thank you, Mr. Chairman.

Mr. Breaux [acting chairman]. The gentleman's time has ex-

pired. Mr. Patman from Texas.

Mr. Patman. Mr. Kelly, were you at any time prior to the sinking of the Ocean Ranger advised or warned by any person that the vessel was vulnerable to wave actions under storm conditions likely to occur in the Newfoundland area?

Mr. KELLY. No. sir.

Mr. Patman. Was anyone in the organization to your knowledge?

Mr. Kelly. No, sir.

Mr. Patman. Had personnel on board the Ocean Ranger been engaged in evacuation procedures and drills for those in the weeks prior to the sinking of the Ocean Ranger?

Mr. Kelly. As far as I know, sir, they were.

Mr. Patman. What occurs in an evacuation procedure, or a drill?

Mr. Kelly. I just described that to the Congressman.

Mr. Patman. Pardon me. Basically it is sufficiently thorough, in your judgment, to meet a situation of the type that occurred or was likely to occur in these waters?

Mr. Kelly. Yes, sir. As I say, it is done weekly and it is done by experienced people. I guess to the extent of the experience of the

people on the rigs and how they view it and understand it, each

one has his own perception of that.

Mr. Patman. I did not hear your answer to the questions but you stated that the drills were performed in the order and at the proper time prior to this disaster?

Mr. Kelly. Yes, sir.

Mr. Patman. Over what period of time?

Mr. Kelly. Every week.

Mr. Patman. Thank you very much.

Thank you, Mr. Chairman. Mr. Breaux. Mr. Dyson?

Mr. Dyson. Something that concerns me about this whole evacuation. The gentleman in the middle there indicated that, or at least based on the impression that I had and what he said that trying to escape in a lifeboat was probably virtually meaningless and yet he also indicated that the state of the art today is the survival capsule and someone has provided a diagram of this rig here. You can see—I assume you both have that—you can see two indications here of survival capsules and in a better illustration here.

We do not know a whole lot about them. I assume what happens is that they are completely covered. That you climb in and then you are dropped and then you become like a cork and float. Clearly, I agree that that is certainly the state of the yard in the sense that one would be more apt to survive in that sort of a vehicle than in a lifeboat especially if they had some sort of survival goar.

in a lifeboat especially if they had some sort of survival gear. I had the impression that that was not aboard the Ranger?

Mr. Kelly. Yes. We had operational three covered lifeboats.

Mr. Dyson. Lifeboats, not capsules?

Mr. Kelly. Yes, lifeboats, not capsules. But, they are fully equipped like the capsule. They have power, food and all the facilities and really to measure——

Mr. Dyson. Why not the capsule? Clearly, from what one of the

other witnesses has indicated——

Mr. McIntosh. Could I clear up a misconception? What I referred to would be perhaps meaningless is to get in the canvas rubber liferafts in a winter storm.

Mr. Dyson. Well, that is a liferaft. That is altogether something

different is it not?

Mr. McIntosh. Right. Our industry considers, however, the capsule to which you are referring and a covered lifeboat as essentially equivalent in protective abilities.

Mr. Dyson. Protective ability meaning once you are in the water

and——

Mr. McIntosh. Either way.

Mr. Dyson. And duration?

Mr. McIntosh. As means of evacuating a rig under the condition

with which they are designed to cope.

Mr. Dyson. I have the impression that with a lifeboat it would be virtually impossible even to get to the water because of the waves that are as high as, in some cases, 70 feet.

Mr. Kelly. I think that the problem of navigation of the capsule would be equivalent to what you would have in a covered lifeboat. I do not think it is any easier to launch—and you can ask the Coast

Guard people about that—to launch one of those circular things

than it is the covered lifeboat.

I think our general impression of it is that the covered lifeboat is better. There are no cost problems with that. We use the very best that we can. Either method, I think, is approved by the Coast Guard but I do not think the——

Mr. Dyson. I am basing some of my impressions on what you

have said today. I am certainly no expert.

Mr. Kelly. All I said is that the problems of doing this have been the problems of the sea for thousands of years. They cannot do it off an aircraft carrier any better than we can off a rig.

Mr. Dyson. I realize that. Of course, for thousands of years we

have had a typical lifeboat.
Mr. Kelly. This is not typical.

Mr. Dyson. Not the survival capsule and you provided this. As you have indicated, it is the state of the art. I wonder—let us see, the Coast Guard does not require that today, right? Is that why, perhaps, it would not be there?

Mr. Kelly. Oh, yes they do. The Coast Guard does require—it has to be Coast Guard approved. I think they approve either one

but you could ask them.

Mr. Dyson. Which would be less expensive?

Mr. Kelly. I do not really know.

Mr. McIntosh. They are very close to each other in price.

Mr. Kelly. I do not think there is any big deal here in money. Mr. Dyson. There would be in lives though.

Mr. Kelly. Well, I do not think there is that big a difference though in the survival capabilities of either one.

Mr. Dyson. I thank the chairman.

Mr. Breaux. Mr. Hertel?

Mr. HERTEL. Thank you, Mr. Chairman.

I want to go back to the beginning. Why would the beginning—why would 6 hours notice—was it so hard to abandon the facility properly?

Mr. Kelly. I am sorry, Congressman?

Mr. Hertel. Six hours notice of the problem developing—why was the abandonment not proper with that kind of notice? Why did

it take so long to make a decision and move ahead?

Mr. Kelly. We do not know what went on aboard that rig that night. We know of the incident that happened at 7:30 till 8:00. We also know that by 10 o'clock they thought it was all right. Things happened between 10:00 and 1:00 that produced this severe list to

Now, from that point on, they abandoned in half an hour but

what transpired there and who did what we just do not know.

Mr. Hertel. You were in communication? You had a chance to you have a transcript, I assume of the communications with the

Ocean Ranger?

Mr. Kelly. Yes, well, everything that I have talked about, people have testified to hearing and again that is the proper subject of an inquiry. We do not know anything else other than what I have disclosed to you.

Mr. HERTEL. Do you see a problem with procedure as to who is in

charge, who would make those decisions?

Mr. Kelly. It is clear cut that in this situation the tool pusher is the senior man and would make the decision to abandon. He could, of course, consult with his marine advisor but that is our written procedures and I believe that is the Coast Guard approved procedure.

Mr. Hertel. What is his title again?

What are his responsibilities? He is in charge of the entire operation?

Mr. Kelly. He is just as close to God as you can get.

Mr. HERTEL. It looks like he would need to be in situations like this.

What kind of training does that person have in regard to the

ocean and decisionmaking and things of that sort?

Mr. Kelly. Primarily experience. The particular fellow had been with us a long time. I think he had been with us maybe 10 or 12 years. But it is mostly experience in the oilfield to become a tool pusher. It is mostly experience in all aspects of the operation; the drilling as well as the maritime.

Mr. Hertel. What kind of training do they have as far as mari-

time?

Mr. Kelly. Well, based on his experience of years in the oilfield. Do you mean did he take an examination, or—? No, I do not think they are required to do that.

You have got a skipper, who is fully licensed available for them

but their experience is basically one in the oilfield.

Mr. Hertel. So it is basically drilling experience that this gentleman had?

Mr. Kelly. No, except in our business we have a lot of offshore so he has a lot of maritime experience if he served aboard any of our rigs, which he had—something like 10 or 12 years. He was involved with ballasting problems and knew something about the sea as well as drilling a well.

Mr. HERTEL. But he had no special training whatsoever with

regard to the sea, just his experience?

Mr. Kelly. That is right. He is not a licensed master in that sense.

Mr. Hertel. To the degree that he operates as the ship's captain with the power of life and death in making decisions, he has no

special training in that area at all?

Mr. Kelly. Of course, he is on location and the normal problems develop on the move. But, he has got to listen to his chief maritime man in making that decision. He also has many years experience with similar problems.

Mr. HERTEL. Why would not the chief maritime man have had

the power of decisionmaking regarding maritime decisions?

Mr. Kelly. Well, it is not entirely a maritime decision normally when you are in this kind of trouble.

Mr. HERTEL. I do not understand, I thought it was a maritime

decision?

Mr. Kelly. Well, indeed, the measuring of how long they had and what they could do about it, how they could correct it, he has many years of experience from which to draw upon in making the ultimate decision. I am sure that he relied heavily upon the master with this one. But, you have to decide who is in charge, who is the

skipper and when you are on location the tool pusher is the skip-

per

Mr. Hertel. By the very definition of the decision to be made and the use of the term "skipper" should not that person then who makes those decisions in fact be someone with total—the person who makes the decision to abandon and the person who makes the decision for life and limb, should not that person be a maritime person rather than somebody from the oil company with oil experience?

Mr. Kelly. Well, he is a dual person. To say that he is just an oil company—puts him on land. This fellow had been on the water for 10 or 12 years operating all kinds of rigs and had an extensive maritime experience as well as drilling, so he is a dual person, like most people who run things. They are not particularly gifted and qualified in every aspect of it.

Mr. HERTEL. Had this individual had experience in the North At-

lantic?

Mr. Kelly. The particular skipper?

Mr. HERTEL. Yes.

Mr. Kelly. He had spent the year before in the North Sea.

Mr. Breaux. The time of the gentleman has expired.

Mr. Kelly in your opinion as company representative, should vessels of this type be allowed to continue to operate when the Coast Guard certification has expired?

This is a policy question that we have to address as far as looking at the OCS Lands Act and we are trying to get your recommendations. Should vessels or rigs be allowed, in your opinion to continue to operate with an expired certificate?

Mr. Kelly. Well, not without a very good reason. I think that is

the way I would respond to that.

Mr. Breaux. Is that Zapata's response?

Mr. McIntosh. Well, certainly there is a grace period in such certificates and permits and there should be because there are many reasons for not being able to meet somewhat arbitrary calendar deadlines due to what is happening on the well or the weather conditions so, yes, they should be permitted to operate for a brief time after the expiration.

Mr. Breaux. The statute says the head of the department under which the Coast Guard is operating shall require the Coast Guard to inspect at least once every 2 years. The statute does not speak to a grace period or any kind of a period, should be allowed to operate without an inspection. Do you feel that there is in the industry, by

trade, a grace period by practice?

Mr. McIntosh. I have no knowledge of the exact practice in the

industry. If there is or is not one I would not know.

Mr. Breaux. Mr. Sexton, do you believe that a vessel of this kind should be allowed to operate without a valid, current certificate of inspection?

Mr. Sexton. I think it depends on the particular situation, which certificate is in question and what—and what is the real status of

the well that they presently own.

Mr. Breaux. Do you mean operating or drilling?

Mr. Sexton. Trying to control a blowout and needing to leave location and come in and inspect or—

Mr. Breaux. What about normal operation?

Mr. Sexton. If there is a grace period, as I understand from time to time there is one offered that is in conjunction with well operations, well, yes. Let this grace period go on and when the operations are normal then come in and do your inspection.

Mr. Breaux. We are going to pursue this concept of a grace period very carefully with the Coast Guard this afternoon. Do your companies feel that a \$500 fine is a realistic deterrent to allowing a

certificate of inspection to expire?

Anybody?

Mr. Kelly. I think the question answers itself. I do not think-

Mr. Breaux. Does everybody else agree with the fact that it is

not a deterrent? [No response.]

Mr. Breaux. Does the Canadian Government require any Canadian certificate of inspection to operate in Canadian waters or do they rely on the U.S. Coast Guard certificate of inspection for safety purposes?

Mr. Kelly. They conduct regular inspections, and indeed had conducted one within a week of the incident on the Ocean Ranger.

Essentially I think they had two handrails that had to be renewed or something, but it was nothing significant and the Minister of Energy was questioned in Parliament about it and responded that everything was all right.

Mr. Breaux. Is it as extensive as the Coast Guard certification of vessels or is it an inspection that is conducted in a 1-day period?

How extensive is the Canadian inspection?

Mr. Kelly. That is a relative matter. I think the Coast Guard is much more experienced and capable and have had these units to look at for a long time.

I just think they have a better capability than the Canadians but, I think, the perview of what they are looking at is essentially

the same. They are looking for the same things.

Mr. Breaux. Do the Canadian inspections look into the ballast-

ing system and seaworthiness of a rig?

Mr. KELLY. I do not think so. The one I am talking about, I

think, was primarily safety.

Mr. Breaux. Were the other two companies operating in this

area operating under valid Canadian certificates?

Mr. Sexton. To my knowledge they were. We have our units inspected on a frequent basis and before we ever even headed toward Canada our unit was inspected by Canadian authorities to make sure we were in compliance with whatever their requirements

Mr. Breaux. Mr. McIntosh?

Mr. McIntosh. Yes, that is correct.

Mr. Breaux. Gentlemen we have a recorded vote. The Chairman has indicated that this panel is to be excused. We have no further

questions at this time for this panel.

We thank you very much. It has not been easy, but we do appreciate your candor and frankness in your presentation and trying to the best of your ability to discuss something for which the answers have not yet been determined and will not be for a very long time.

As we have indicated, this committee's real intent is to look at the current rules and regulations governing OCS operations of U.S.

vessels and to determine if they match the situations that they are designed to protect.

I think your testimony has been extremely helpful.

Chairman Jones has indicated that the committee will be in recess and we will take our next panel at about 1:15 p.m.

[Whereupon the committee recessed at 12:16 p.m.]

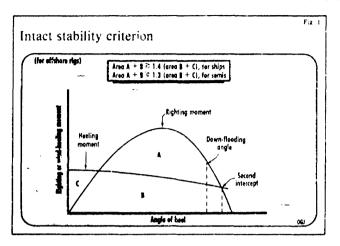
# AFTERNOON SESSION

Mr. Jones. The committee will come to order. The next witness is Mr. Alan C. McClure & Associates of Houston, Tex.

Mr. McClure will testify as an expert on the design, characteristics and requirements of semisubmersibles. His testimony will be based on the article, "Stability Requirements For Semisubmersibles Need Modification," a copy of which follows. Mr. McClure, you may proceed.

[Article follows:]

# Stability requirements for semisubmersibles need modification



# Study conclusions

- 1. The extensive testing of a typical semisubmersible under extreme wind and wave conditions showed no capsizing tendency, even at righting moment to wind moment area ratios less than 1.0. It is demonstrated that the required wind-heel-stability criterion is not applicable.
- A semisubmersible which has a reasonable wind-heel-equilibrium angle in still water probably will have satisfactory stability in the presence of wind and seas.
- 3. Combined wind heel and wave action can induce stamming on the underside of the upper structure. Reduction of wind heel to obtain wave clearance can be a determining requirement for righting moment.
- 4. High, steep waves can generate a hydrodynamic heeling moment which will cause a list if the metacentric height is below a critical value. Such a list

- is independent of wind heel.
- 5. Wind force and moment determination on a semisubmersible by existing analytical methods is of questionable accuracy. Systematic wind-tunnel testing of components and configurations offers the only immediate promise of resolving this situation.
- 6. Research by further testing and analysis should be continued toward a more-precise definition of the stability patterns observed and toward firm establishment of realistic criteria.
- 7. The present practice of establishing wind criteria in the absence of waves, and wave-clearance criteria in the absence of wind, should be taken in association with the wave heights and periods that can be produced in that regime, and concurrent effects applied simultaneously.

EDWARD NUMATA

Stevens Institute of Technology
Hoboken, N.J.

WAITER H. MICHEL Friede & Goldman New Orleans

ALAN McClure McClure Associates Houston

A 2-YEAR research program on stability behavior of semisubmensibles concludes that present design criteria which emphasize overturning are inappropriate. Even with high winds and maximum seas, the possibility of overturning is minimal.

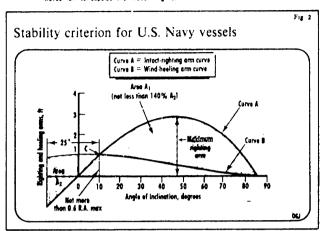
The work of panel MS-3 of the Society of Naval Architects and Marine Engineers (Sname) indicates two areas of major need for adequate stability. Design should lessen the possibility of wave impact on the upper structure and minimize motions due to secondary effects in operating conditions.

The first semisubmersible drilling platforms were put into operation in the early 1960's. Apart from the limited experience gained during the preceding years of using column stabilization in\_submerging or raising a unit from the ocean floor (in relatively shallow water and moderate environment), there was little guidance as to the stability needs in a semisubmerged operational mode.

In the mid-1960's, the American Bureau of Shipping (ABS) organized its first committee on offshore mobile drilling units to establish a uniform set of requirements for design and construction of drilling platforms.

For the first time in the history of classification societies, a definitive set of requirements for both intact and damaged stability was to be included as a requirement for class, in recognition of the fact that these

Article adapted from paper 1 presented Nov. 1976 at the Sname annual meeting. New York. Copies of the complete paper are available from the Society of Naval Architects and Marine Engineers, 73 Trinity Place, N.Y. N.Y. 19006. RESEARCH was conducted on a  $1.96\,\mathrm{scale}$  semi. Here, 140-knot winds and 120-ft waves fail to capsize the model (Fig. 3).



units had characteristically high centers of gravity and high windage areas and, being essentially fixed in location during operations (or slow moving in transit), were highly vulnerable to the exigencies of wind and sea.

With most activity at that time concentrated in the hurricane-prone Gulf of Mexico, there was little objection to this position.

Stability criteria. The rules committee adopted the wind-heel criterion for intact stability that had been developed by the U.S. Coast Guard for general ship-stability application. This criterion¹ (shown in Fig. 1) as taken from Ref. 1 is a simplified version of the naval ship criterion of Serchin and Goldberg² (shown in Fig. 2).

It eliminates any stipulation of roll angle, requiring only the calculated wind-overturning moment as basic input information.

Its premise is that the excess of righting energy (area under the righting-moment curve to angle of overturning, or to any lesser downflooding position) over that of the wind energy to the same point should be sufficient to account for all other possible overturning effects and uncertain quantities, such as:

- Wind gusts.
- · Motions due to sea.
- Overridden moorings.Errors in wind-force assessment.

This margin of excess righting en-

ergy was selected as 1.4 for the case of surface vessels. In consideration of less motion response to the sea, the factor for semisubmersibles was reduced to 1.3.

Before conclusion of this matter, an alternate criterion for semisub-mersibles was proposed, similar to the approach of Sarchin and Gold-berg, wherein from a point of static equilibrium of the calculated wind heel and righting moments, further foll excursions due to sea, wind gusts, etc., could be reasonably assessed, and the stability rationally evaluated.

The rules committee was reluctant at that time to require that a sea state be correlated to wind effects, and feit that there was insufficient data on actual semisubmersible motions to establish probable roll excursions applicable to different configurations.

The proposal was therefore withdrawn, but in view of its possible merits, a separate article was included in the rules to provide for consideration of any such rational approach that was sufficiently documented.

"3.15.3 Other stability criteria — based on authoritative wind-tunnel tests and behavior tests of a representative model in waves, alternate stability criteria will be considered for approval."

The wind-heel criterion for intact stability was put into effect in the first set of ABS rules for offshore



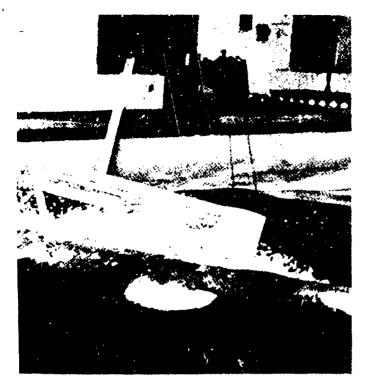
mobile units, issued in 1968. This is the same criterion in effect today.

In 1972, the committee reconvened to consider revisions to the 1968 rules. One of the crucial issues was the wird-heel criterion as applied to semisubmersibles, which was considered by many operators and designers to penalize unreasonably the semisubmersible's load-carrying capacity.

Operating experience under fairly severe conditions, as well as analysis of the energy-available concept, tended to belie the need for the stringency expressed by the criterion. Strong arguments were made for a reduction in the requirements.

Nevertheless, the committee felt that the data and rationale presented were insufficient to justify a fundamental change. While a clarification of the rule requirements was made that alleviated some of the concern, the principle of the wind-heel criterion and the associated factors were retained in the new revision of the ABS rules issued in Ref. 3.

Research project. Another objection to the stability criterion is that the Area B in Fig. 1, the area under both the wind-heel and righting-moment curves, should not be consid-



ered a factor in the stability criterion since one factor balances out the other. A contradictory feature of the criterion is that beyond the angle at which the righting moment is 1.3 times the heeling moment, the area ratio will decrease. The down-flooding angle can be artifically reduced to truncate the curve at the above point to meet the stability criterion, but actually reducing the safety of the unit.

In light of the controversy, panel MS-3 "Mobile Offshore Platforms" of the Marine Systems Committee of the Sname undertook a research program on the behavior of semisubmersibles under combined wind and sea to establish more-definitive stability requirements.

Support was received from 14 companies: American Bureau of Shipping; Amoco Production Research Co.; Avondale Shipyards Inc.; Exxon Production Research Co.; Friede & Goldman Inc.; Odeco Inc.; Reading & Bates Offshore Drilling Co.; Saipem S.p.A.; Santa Fe International Corp.; Sedco Inc.; Shell I.P.M.; Stevens Institute of Technology; and Zapata Off-shore Co.

Full support of this program was

by private subscription. The industry recognized the need and assumed the initial responsibility for conducting this research, and no government funds were solicited.

Two interim reports were made to the industry in the form of papers presented before the Offshore Technology Conference in 1974\* and 1975.

The program was concluded in late 1975, and a final report was submitted by Davidson Laboratory to the panel for their consideration.

Tests were directed toward the determination of absolute and relative motions under various conditions of loading, draft, and associated righting-moment variations, and as influenced by wind, waves, and moorings.

Capsizing. The initial emphasis was directed toward examining the validity of the wind-heel criterion. Under what set of environmental conditions would the unit be critical in stability and what factor of righting energy to wind energy would this represent? After several early trials on the first model, the following conditions were imposed:

1. Wind of 140 knots (twice the calculated effect of the maximum rule requirements of 100-knot wind).

- 2. Metacentric height (GM) of 2 ft.
- 3. Ratio of righting area to wind area = 0.82.
- 4. Maximum wave height = 120 ft.
- 5. Moorings overridden (the seaward moorings are assumed broken and the unit "trips" over the leeward moorings).

The inevitable overturning did not occur. No capsizing situation was approached even though the top of the leeward caisson was frequently several feet under the water surface. These observations supported the view that even at large wind-heel angles, the semisubmersible still responds linearly or nearly so to the harmonic wave forces. Under this premise, if the unit is not unstable due to wind-overturning effects alone, it will not become unstable due to added wave dynamic effects.

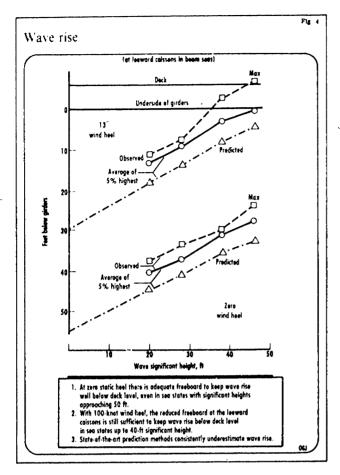
However, in the process of demonstrating that large reserve of righting moment is not essential to maintain stability, the testing revealed another situation that could have serious consequences of a different nature. Wave impact under the platform deck adjacent to the leeward caissons was significant under high wind-overturning moments and high waves. The less the available righting moment, the more pronounced the impact was seen to be.

Wave clearance. Further tests concentrated on rig-motion characteristics in regard to wave clearance at the leeward caisson, which now was recognized to be a most-significant parameter. Models were tested in regular and irregular waves at several heel angles and GM values.

Typical results of wave-clearance measurements at the leeward caisson are shown in Figs. 4 and 5 including both direct\_measurements from the irregular sea tests and derived values.

Two important features are indicated from these data:

• The wave rise on the leeward caisson, measured from still water level, was only moderately greater in the wind-heel condition than with the unit at zero heel. The major factor that reduces "air-gap" clearance to the upper deck was seen to be the initial heel angle itself. Obviously then, the greater the righting moment characteristic, the less the heel angle produced by a given wind moment, and the greater the resulting clearance.



 The wave rise produced in the irregular-sea tests was consistently higher in all cases than predicted from regular wave data.

Metacentric height. The ABS stability criteria include, in addition to the wind-heel criterion, the requirements that the GM be positive over the full range of drafts and loading conditions.

There are a number of semisubmersibles currently in operation both of a buoyant upper-hull type and those with open platform decks that can meet the wind-heel criterion with zero initial stability, that is, with zero GM.

However, all vessels need a positive GM sufficient to facilitate safe operations, that is, sufficient to avoid large sudden heel or trim angles which could jeopardize the safety of personnel or caure damage to equipment and structure.

Examples of operations which may cause large heeling moments are:

- Heavy-lift crane operations.
   Some modern crane installations on drilling rigs have ratings as much as 100 tons. Lifting such a load 100 ft off center would cause a heel of about 5° in a 20,000-ton semisubmersible with a GM of 5 ft.
- 2. Units in which the drilling derrick is not directly over the center of flotation can develop large heeling or trimming moments as a result of picking up or releasing heavy weights, such as when trying to free stuck pipe in the well or in the event

of drill-pipe failure.

3. Failure of a mooring line when under significant tension could result in a substantial heeling moment.

The assignment of a suitable minimum value of GM to take care of these effects is a matter of judgment and experience. Current operating practice varies from one operator to another. However, most operators try to keep GM as low as permitted by 1.3 area ratio.

Lower but still positive G'1 is permitted during the transition imm operating condition to transit condition.

Wind force and moment. The overturning moment due to wind is one of the critical factors in determining the intact stability and the wave clearance of a semisubmersible. Unfortunately, it is also the least researched, and its determination the least reliable.

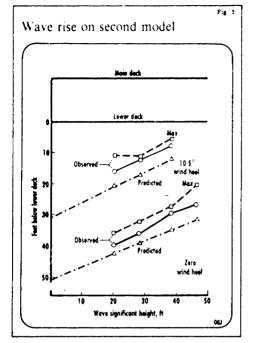
The method presented in the ABS rules makes use of well-substantiated wind-force coefficients on individual elements and bodies, derived from aeronautical and civil engineering data. What is lacking is a reasonable knowledge of how these individual elements are influenced by each other when combined into a semisubmersible drilling rig.

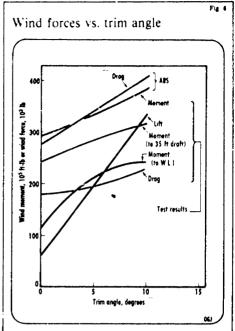
Blockage or shielding effects of one element on another farther downstream are not readily determined, and are generally ignored. The increase in wind force due to heel of the unit is taken at a higher value than one would anticipate from aerodynamics. Yet the increase in moment due to lift generation on the upper works is disregarded.

Without further validation, the accuracy of the accepted method is highly questionable, as is the determination of whether it errs on the high or low side.

In this regard, one cannot fully discount the experience related by semisubmersible operators. Practically without exception, their indications are that the calculated wind heels are exaggerated well beyond those actually developed in severe environments. While such observed behavior may be biased, for example, by the restraining effect of intact moorings, inexact measurement of steady wind speed, or by the blanketing effect of high surface waves, the testimony should not be ignored.

Panel MS-3 has initiated a program for gathering and analyzing behavior-





al data for semisubmersibles in service, which hopefully may result in reasonable indications of wind - heel effects. However, it is realized that only general trends may be expected from this program, since wind force and overturning effects would be extremely difficult to isolate and evaluate accurately on a full-scale operational unit, considering the influence of wave motions and current that accompany any significant wind.

It is believed that wind-tunnel tests on semisubmersible configurations offer the only feasible means of evaluating wind effects.

An example of the difference in results between the wind force and overturning moment calculated by ABS rules and those determined from wind tunnel tests is given in Fig. 6. The configuration is that of the Mohole design," and the ABS factors have been calculated in accordance with presently accepted practice.

It can be seen that the calculated drag force is over 50% greater than that determined experimentally, whereas the calculated overturning moment is only about 20% greater than the test value (both referred to

an assumed center of lateral resistance at half-draft).

For this configuration, with its fairly open tubular array and smooth underbody, the increase in drag due to underside exposure when trimmed is seen to be modest, whereas the generation of lift force and lift - induced moment is significant.

Wind-tunnel tests of a submerged running semisubmersible with sharply faired columns showed good agreement with wind-force calculations in the head direction but poor correlation in the beam direction. This clearly indicates the effect of blockage of the elongated columns in the beam direction.

An extensive series of wind-tunnel tests was performed on the semisubmersible Staflo," a 10-column, twinhull unit. In Ref. 9, de Jong demonstrates that wind force on a semisubmersible can be predicted with acceptable accuracy, using coefficients derived from the experiments. However, prediction of the heeling moment by similar means was not successful, indicating the need for further research.

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# NELSON INDEXES-7 (CONCLUSION)

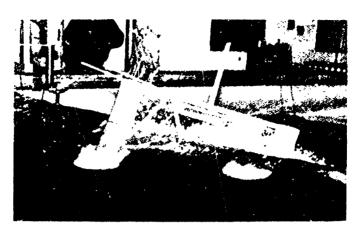
W. 1. NELSON
Technical Editor and
Petroleum Consultant

Cost indexes of equipment or materials (or composite groups)\*

***************************************														
Equipment or material?	1547	1948	1949	1950	(1946 1951	i = 100) 1952	1953	1954	1955	1956	1957	1958	1959	1960
Bubble trays Building materials (non-metallic) Brick, building Brick, fireclay	114 4 135 5 110 5 121 0	147.1 122.8	151 2 127.7	154 8 132 5		149 8 164 4 140 6 167 1	171.1	143 5 144 7	149.4 150.5	154 0	159.9 161.3	191 2 161 7 162.4 238 7	195 9 163 5 166 4 244.4	197.3 164 0 169 2 244 4
Casting, iron Clay products (structural, etc.) Concrete ingredients Concrete products	††122.8 111.4 ‡111.0	121 3	126 0 123 7			1179 0 145 8 132 7 132 6		159 1 142 1	167.4 146.6	176 9 153.3	184 0 159 7	11219 8 187 0 163 2 151 0	11223 2 191 4 164 7 152 9	1+224.5 193.0 167.8 154.6
Electrical machinery Motors and generators Switchgear Transformers Engines (composite)	122.0 126.3 120.7 122.9 109.0	128 6 127.2 127.0	128 7 132 3	135 0 142.8 131.6	154.3 155.8 166.7 147.7 146.1	152.4 154.6 161.4 148.0 146.5	156.4 157.1 165.0 156.9 148.1	157.7 171.2 161.9	157.1 176.5 161.8	175.0 169.6 194.9 175.4 164.0	181.2 212.0 188.0	192 7 186.4 218 8 187.3 178.3	195.8 186.4 223.5 188.6 178.5	195 2 182 8 221.0 181 8 180.7
Exchangers (composite) Copper base Steel Fractionating towers Hand tools	115.0 115.1 112.0	132 0	133 0 132.1 134 0	140.0 135.0 143.2	152.0 139.1 154.2	165.8 175.3 152.3 150.0 155.1	174 9 185.3 159.4 151.3 165.4	171.7 190.7 156.8 149.7 173.8	145.3 153.7	193.4 198.8 178.6 166.7 200.3	191.4 213.2 175.2	181.2 168.8 190.0 176.7 224.7	179.3 169.6 186.4 180.1 230.4	194.0 184.9 201.2 183.1 234.5
Instruments (composite) Pressure recorder (pneu) PR Pressure recorder (elec) PR Pressure recorder cont. (pneu) I	113.0 PRC		123.1	127.8 ##137.9 ##137.0 ##134.0 ##135.0	142.3	146.2	151.9	154.6 ##168.0 ##162.8 ##163.5	162.9 ##172.0 ##174.8 ##167.4	182.1	187.4	194.9 204.0 229.5 198.8	201.0 204.0 246.6 198.7	202.5 206.3 243.0 201.7
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Temp. recorder (pneu) TR## Temp. recorder (elec) TR## Potentiometer, 6-point, TR Temp. control (pneu) TRC## Temp. control (elec) TRC## Control valve (elec)	111.0 _117.0	120.0	125.8	134.0 ##126.2 ##135.4 133.3	##151.7 146.6	151.5 155.5	157 8 162.5	##160.8 167.2 ##154.7 ##160.7 161.9	178 6 #158.9 #172.7 166.7	211.8	230.9	188.1 226.4 240.4 184.9 226.2 199.2	188.1 243.5 258.9 184.9 243.3 199.3	190.6 239.9 240.9 187.1 239.7 199.3
Insulation (composite)	¶118.0		¶130.1	¶125.0 190.0	¶128.8 208.5	¶130.4	¶133.5	198.5 197.8	193.1	183.8	186.1	188.0 198.9	186.8	188.5
Lumber (composite) Southern Pine Redwood, all heart Cypress C, select	155.0 #138.0 \$140.0 155.0	181 0 174.3 5166.0 178.0	165.3 157.7 \$181.0 213.5	176.9 212.0 250.0	189.1 224.5 255.5	203.2 191.2 249.0 256.5	201.1 189.6 235.5 253.0	181.2 238.0 5255.0	209.7 188.4 246.0 261.3	214.5 195.0 253.6 265.6	201.8 187.6 243.0 266.5	184.7 204.0 \$267.5	214.1 190.9 218.0 267.5	204.8 187.9 211.4 267.4
Machinery: General purpose Construction Oil field	116.0	124.9 127.8 125.9	131.9 136.0 132.9	136.7 140.1 135.8	153.0 155.3 149.6	151.8 157.5 149.9	155.1 162.3 156.3	159 9 165.9 161.9	165.8 172.5 168.5	183.8 187.4 179.3	196.5 199.4 193.2	199.6 209.6 192.5	206.0 217.0 192.6	208.4 221.8 193.0
Paints—Prepared Pipe:	138.9	141.4	142.8	140.0	153.8	155.7	156.7	159.0	161.4	169 2	178.1	180.9	179.9	181.2
Clay sewer Black iron 6-in. line Pumps, compressors, etc.	111.5 120.5 115.0 114.0	121.5 148.0 133.4 127.0	119.3 152.2 149.2 135.9	120.7 160.0 156.5 138.2	169.0 167.2 155.9	136.9 179.0 170.1 155.6	136.1 186.0 178.9 162.5	140.1 195.0 182.7 166.5	144.9 201.0 193.0 177.2	160.5 233.0 219.8 192.0	168.0 256.1 244.5 206.7	170.1 264.8 252.4 214.7	176.2 263.8 251.5 226.5	178.2 261.0 248.9 228.3
Steel, finished Bars (low alloy) 3120 Plate (carbon) Sheet, AISI 302	120.3	136.7	\$\$146.5 150.7 TT142.1	95153.7 156.3 ¶¶152.3	\$\$166.3 164.8 \$\$160.0	170.0 169.0 18163.2 155.0	\$\$182.7 190.2 \$\$175.8 173.0 166.0	\$\$187.1 198.7 187.0 177.0 169.0	196.0 208.0 195.1 184.0 175.0	212.4 221.0 215.9 197.0	232.5 236.0 241.8 218.0 197.0	240.6 242.7 252.7 222.0	244.7 246.0 257.4 215.0	244.0 246.0 254.3 212.0
Strip, AISI #20 Structural (carbon) Tubes, seamless, 2-234 Tubing, AISI 304	113.5 115.0	138.0 135.0	152.2 140.9	162.7 149.5	172.3 163.3	176.2 168.8	185.7 -188.3 175.0	193.4 199.4 180.0	204.3 211.2 190.0	187.0 219.1 235.5 200.0	252.2 265.4 220.0	201.0 262.8 277.5 226.0	197.0 268.5 285.1 226.0	196.0 268.3 282.7 220.0
Tanks and pressure vessels Tube stills Valves and fittings	117.5	140 0 130 0 125.9	134 8 132.9	136.0 129.0 135.8	156.1	153.4 126.0 190.8	150.3 127.0 193.1	147.3 123.0 197 1	150.3 120.0 208.6	168.0 119.0 231.9	176.3 117.0 243.4	175.1 113.0 242.7	177.2 107.0 257.6	181.0 98.0 260.3

<sup>\*</sup>From Quarterly Costimating page of OGJ, January, April, July, and October. †Sources shown in Quarterly Costimating page (code numbers of Bureau of Labor Statistics, etc.). ‡Cement only—sand index 112.0. §Revised, OGJ, July 5, 1965, p. 117. ¶Only asbestos pipe insulation. §Yellow-pine timbers—

Advance cupy of paper to be presented at the Annual Meeting, New York, N. Y., November 11-13, 1976



a direct frontal attack on the problem was ordered-to impose such maximum environmental forces on a minimum stability condition to capsize the model

# **Assessment of Stability Requirements for** Semisubmersible Units

Edward Numata, 1 Member, W. H. Michel, 2 Member, and Alan C. McClure, 3 Member

The development of the presently required stability criteria for semisubmersible platforms is traced, and the lack of rigor embodied therein is indicated. Results of a recent two-year research program directed by SNAME Panet MS-3 on stability behavior of semisubmersibles are presented in detail. Conclusions are drawn that the present criteria which emphasize overturning are inappropriate, and that even with high winds and maximum seas the possibility of overturning is minimal. The major that even with high winds and maximum seas the possibility of overturning is minimal. The major needs for adequate stability are indicated to be for lessening the possibility of wave impact on the upper structure in heavy weather, and for minimizing motions due to secondary effects in operating conditions. Various factors that may influence the assignment of required stability for a semisubmersible are discussed. Further research into the stability-behavior relationship and toward improved evaluation of wind heel is outlined.

#### Part 1: General

#### Background

THE FIRST semisubmersible drilling platforms were put into operation in the early 1960's. Apart from the limited experi-

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<sup>3</sup> Owner, Alan C. McClure Associates, Houston, Texas.
For presentation at the Annual Meeting, New York, N. Y., November 11–13, 1976, of THE SOCIETY OF NAVAL ARCHITECTS AND MARINE. ENGINEERS

ence gained during the preceding few years of using column stabilization in submerging or raising a unit from the ocean floor (in relatively shallow water and moderate environment), there was little guidance as to the stability needs in a semisubmerged operational mode.

In the mid-1960's, the American Bureau of Shipping organized its first committee on offshore mobile drilling units for the purpose of establishing a uniform set of requirements for design and construction of drill ships, jack-up units, and col-umn-stabilized types of drilling platforms. For the first time in the history of designation resisting a definition of the state of in the history of classification societies, a definitive set of requirements for both intact and damaged stability was to be included as a requirement for class, in recognition of the fact

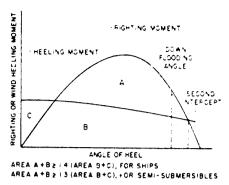


Fig. 1—Intact stability criterion for offshore mobile drilling units. [1]

that these units had characteristically high centers of gravity and high windage areas and, being essentially fixed in location during operations (or slow moving in transit), were highly vulnerable to the exigencies of wind and sea. With most activity at that time concentrated in the hurricane-prone Gulf of Mexico, there was little objection to this position.

After considerable study, the rules committee adopted the wind heel criterion for intact stability that had been developed by the U.S. Coast Guard for general ship stability application. This criterion (shown in Fig. 1 as taken from reference [1]4) is a modified and simplified version of the naval ship criterion of Sarchin and Goldberg [2] (shown in Fig. 2) insofar as it eliminates any stipulation of roll angle, requiring only the calculated wind overturning moment and the corresponding vessel's righting moment as basic input information. Its premise is that the excess of righting energy (area under the righting moment curve to angle of overturning, or to any lesser downflooding position) over that of the wind energy to the same point should be sufficient to account for all other possible overturning effects and uncertain quantities, such as:

- Wind gusts
- Motions due to sea
- Overridden moorings
  Errors in wind force assessment

This margin of excess righting energy was selected as 1.4 for the case of surface vessels. In consideration of less motion response to the sea, the factor for semisuhersibles was reduced to 1.3

Prior to conclusion of this matter, an alternate criterion for semisubmersibles was proposed, similar to the approach of Sarchin and Goldberg, wherein from a point of static equilibrium of the calculated wind heel and righting moments, further roll excursions due to sea, wind gusts, etc. could be reasonably assessed, and the stability rationally evaluated. The rules committee was reluctant at that time to require that a sea state be correlated to the wind effects, and felt that there was insufficient data on actual semisubmersible motions to establish probable roll excursions applicable to different configurations. The proposal was therefore withdrawn, but in view of its possible merits, a separate article was included in the rules to provide for consideration of any such rational approach that was sufficiently documented:

"3.15.3 Other Stability Criteria— based on authoritative wind tunnel tests and behavior tests of a representative model in waves, alternate stability criteria will be considered for approval." [1]

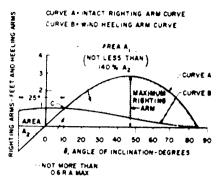


Fig. 2. Intact stability criterion for U. S. Navy surface vessels.

Thereupon, the wind heel criterion for intact stability was put into effect in the first set of ABS rules for offshore mobile units, issued in 1968. This is the same criterion in effect today.

In 1972, the committee reconvened to consider revisions to the 1968 rules. One of the crucial issues was the wind heel criterion as applied to semisubmersibles, which was considered by many operators and designers to unreasonably penalize the semisubmersible's load-carrying capacity. Operating experience under fairly severe conditions, as well as analysis of the energy-available concept, tended to belie the need for the stringency expressed by the criterion. Hence, strong arguments were made for a reduction in the requirements. Nevertheless, the committee felt that the data and rationale presented were insufficient to justify a fundamental change. While a clarification of the rule requirements was made that alleviated some of the concern, 5 the principle of the wind heel criterion and the associated factors were retained without change in the new revision of the ABS rules issued in [3]

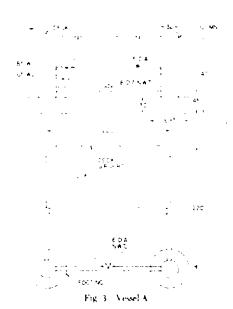
Another objection to the stability criterion is that Area B in Fig. 1, the area under both the wind heel and righting moment curves, should not be considered a factor in the stability criterion since one factor balances out the other. A contradictory feature of the criterion is that beyond the angle at which the righting moment is 1.3 times the heeling moment, the area ratio will decrease. The downflooding angle can be artificially reduced in order to truncate the curve at the above point in order to meet the stability criterion, actually reducing the safety of the unit!

In light of this controversy, Panel MS-3 "Mobile Offshore Platforms" of the Marine Systems Committee of the Society of Naval Architects and Marine Engineers undertook a research program on the behavior of semisubinersibles under combined wind and sea to establish more definitive stability requirements. A program was formulated, and funds were solicited from the oil industry and associated marine interests. Affirmative responses were received from the following 14 companies, enabling the program to proceed

American Bureau of Shipping Amoco Production Research Avondale Shipyards, Inc. Exxon Production Research Friede & Goldman, Inc.

<sup>&</sup>lt;sup>4</sup> Numbers in brackets designate References at end of paper.

<sup>&</sup>lt;sup>5</sup> In drilling condition with maximum deck load, the wind heel is taken for 70-knot winds. Under the severe storm condition with 100-knot winds, a reasonable reduction in deck load or change in draft or both is allowable, to increase the righting moment.



Odeco, Inc Reading & Bates Offshore Drilling Company Saipem, Spa Sante Fe International Corporation Sedco, Inc. Shell LP M Stevens Institute of Technology Transworld Drilling Company Zapata Offshore Company

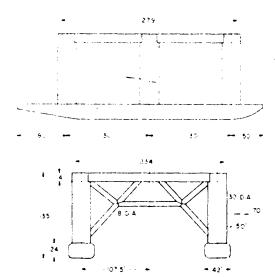
ilt is noteworthy that the full support of this program was by private subscription, the industry recognized the need and assumed the initial responsibility for conducting this research, and no Government funds were solicited.)

In August of 1973, Davidson Laboratory of Stevens Institute of Technology was authorized by the Society to proceed with the research program under the direction and guidance of Panel The program is described in detail in Part 2 of this MS-3

Paper
Two interim reports were made to the industry in the form of papers presented before the Offshore Technology Conference in 1974 [4] and 1975 [5]. The program was concluded in late 1975, and a final report was submitted by Davidson Lab-oratory to the panel for their consideration — The findings were considered so significant as to merit wide circulation throughout the marine industry. Therefore, rather than issuing the report as a Technical and Research Bulletin of the Society, the panel decided to present this paper at its national meeting.

# Highlights of the research program

As explained in detail in Part 2, the research program involved primarily model tests of two designs of semisubmersible platforms, Figs. 3 and 4. The two models were chosen to be representative of the majority of semisubmersibles in use today. Model A, a 4-column footing-type design, is similar to many modern drilling rigs with 3, 4, or 5 columns. Model B is representative of the twin-hull semisubmersibles with 4, 6, or 8 columns.



Vessel B Fig 4

The tests were directed toward the determination of absolute and relative motions under various conditions of loading, draft, and associated righting moment variations, and as influenced by wind, waves, and moorings

The initial emphasis was directed toward examining the validity of the wind heel criterion, that is, under what set of environmental conditions would the unit be critical in stability and what factor of righting energy to wind energy would this represent? After several early trials on the first model, a direct frontal attack on the problem was ordered—to impose such maximum environmental forces on a minimum stability condition to capsize the model!

Ultimately, the following conditions were imposed

- 1. Wind of 140 knots (twice the calculated effect of the maximum rule requirement of 100-knot wind)
  - 2.
  - Metacentric height (GM) of 2 0 ft Ratio of righting area to wind area = 0.82 3
  - Maximum wave height = 120 ft
- 5. Moorings overridden (the seaward moorings are assumed broken and the unit "trips" over the leeward moorings)

The inevitable overturning did not occur, nor was any capsizing situation approached even though the top of the leeward caisson was frequently several feet under the water surface. These observations supported the view that even at large wind heel angles, the semisubmersible still responds linearly or nearly so to the harmonic wave forces. Under this premise, if the unit is not unstable due to wind overturning effects alone, it will not become unstable due to added wave dynamic effects.

However, in the process of demonstrating that large reserve of righting moment is not essential to maintain stability, the testing revealed another situation that could have serious consequences of a different nature. Wave impact under the platform deck adjacent to the leeward caissons was significant under high wind overturning moments and high waves. less the available righting moment, the more pronounced the impact was seen to be

The course of further testing was then changed to explore the

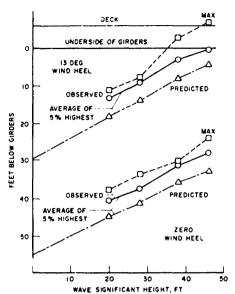


Fig. 5 Wave rise at leeward caissons in beam seas, Vessel A, 85-ft draft, 10-ft GM

rig motion characteristics in regard to wave clearance at the leeward caisson, which now was recognized to be a most significant parameter. Both models were tested in regular waves and irregular waves, at several heel angles and GM values, as described in Part 2. Typical results of wave clearance measurements at the leeward caisson are shown in Figs. 5 and 6, including both direct measurements from the irregular-sea tests and derived values using response amplitude operators (RAO) produced from the regular-wave tests.

Two most important features are indicated from these data

1. The wave rise on the leeward caisson, measured from stillwater level, was only moderately greater in the wind heel condition than with the unit at zero heel. The major factor that reduces "air gap" clearance to the upper deck was seen to be the initial heel angle itself. Obviously then, the greater the righting moment characteristic, the less the heel angle produced by a given wind moment, and thereby the greater the resulting clearance.

clearance.

2 The wave rise produced in the irregular-sea tests was consistently higher in all cases than that predicted from spectral analysis using the regular-wave RAO data

On the latter point, studies of the irregular-wave test records showed impulsive disturbances that caused roll oscillations at the natural frequency, and which when superimposed on the normally expected motions lead to higher roll maxima than might otherwise be anticipated. It was hypothesized that these impulses might be due to second-order wave effects producing lift forces on the submerged elements. The final phase of testing was undertaken to explore this phenomenon.

it had been observed that models with low metacentric heights have a tendency to develop a permanent list when tested in regular waves, at some particular wave frequency and height. Figure 7 shows the results of calculations made for Model B following the methods and assumptions of Appendix 2 of this paper. A very low value of GM is assigned, resulting in an

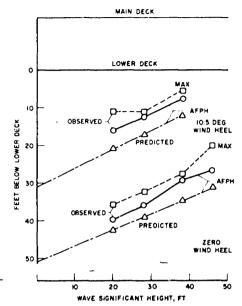


Fig. 6 Wave rise at leeward caissons in beam seas, Vessel B, 70-ft draft, 10.5 ft GM

equilibrium angle of beel of 10 deg in regular waves (20 ft high, 8 sec period) with no wind heeling moment present.

If the GM is increased sufficiently, the wave heel moment curve will lie entirely below the righting moment curve, and the vessel will remain unright as in Fig. 8.

the vessel will remain upright, as in Fig. 8.

In the presence of wind, an initial equilibrium position changes this situation, and the wave heeling moment in the vicinity of the wind heel equilibrium angle becomes important, Fig. 9. A new equilibrium angle is reached, which in the illustration is 5 deg greater than the equilibrium angle due to wind heel alone. This represents a reduction in wave clearance of 9 ft in the example vessel, Model B

Representative tests were run on both models and the results compared with the theory of the lift force on a submerged cylinder in waves. A significant result is that in regular waves a limiting GM can be determined, above which a permanent list due to waves alone will not develop. Although the theoretical results cannot be extended to irregular seas, the tests indicated substantially reduced maximum roll when the GM is above the critical value.

At this point, the research project was halted for the usual good reason that the funds were depleted. It was coincident, however, with the panel's desire to report the findings to the sponsors and to the industry for their consideration and use. In addition, it was an appropriate point for the panel to reflect on the significance of the results and the direction for further research.

#### Need for metacentric height

The ABS stability criteria include, in addition to the wind heel criterion, the requirement that the GM be positive over the full range of drafts and loading conditions. There are a number of semisubmersibles now in operation both of a buoyant upper-hull type and those with open platform decks that can

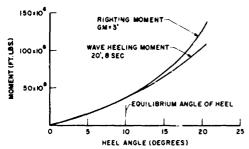


Fig. 7 Wave heeling moment, Model B, 3-ft GM

meet the wind heel criterion with zero initial stability, that is, with zero GM. However, all vessels need a positive GM sufficient to facilitate safe operations, that is, sufficient to avoid large sudden heel or trim angles which could jeopardize the safety of personnel or cause damage to equipment and structure. Examples of such operations which may cause large heeling moments are:

 Heavy-lift crane operations. Some modern crane installations on drilling rigs have ratings as much as 100 tons. Lifting such a load 100 ft off center would cause a heel of about 5 deg in a 20,000-ton semisubmersible with a GM of 5 ft.

2 Units in which the drilling derrick is not directly over the center of flotation can develop large heeling or trimming moments as a result of picking up or releasing heavy weights, such as when trying to free strick pipe in the well or in the event of drill pipe failure.

Failure of a mooring line when under significant tension could result in a substantial heeling moment.

The assignment of a suitable minimum value of GM to take care of these effects is a matter of judgment and experience. Current operating practice varies from one operator to another, however, most operators try to keep GM as low as permitted by 1.3 area ratio. Lower but still positive GM is permitted during ballasting or deballasting transit conditions.

#### Assessment of wind force and moment

The overturning moment due to wind is one of the critical factors in determining the intact sublity and the wave clearance of a semisubmersible. Unfortunately, it is also the least researched, and its determination the least reliable.

The method presented in the ABS rules makes use of well-substantiated wind force coefficients on individual elements and bodies, derived from aeronautical and civil engineering data. What is lacking is a reasonable knowledge of how these individual elements are influenced by each other when combined into a semisubmersible drilling rig. Blockage or shielding effects of one element on another farther downstream are not readily determined, and are thus generally ignored. The increase in wind force due to heel of the unit is taken at a higher value than one would anticipate from aerodynamics, yet the Increase in moment due to lift generation on the upperworks is disregarded. Without further validation, the accuracy of the accepted method is highly questionable, as is the determination of whether it errs on the high or low side.

In this regard, one cannot fully discount the experience related by semisubmersible operators. Practically without exception, their indications are that the calculated wind heels are exaggerated well beyond those actually developed in severe environments. While such observed behavior may be biased,

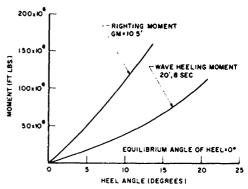


Fig. 8 Wave heeling moment, Model B, 10 5-ft GM

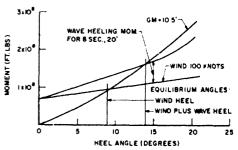


Fig. 9 Wave plus wind heeling moment, Model B, 105-ft GM

for example, by the restraining effect of intact moorings, inexact measurement of steady wind speed, or by the blanketing effect of high surface waves, the testimony should not be ignored.

Panel MS-3 has initiated a program for gathering and analyzing behavioral data for semisubmersibles in service, which hopefully may result in reasonable indications of wind heel effects. However, it is realized that only general trends may be expected from this program, since wind force and overturning effects would be extremely difficult to isolate and evaluate accurately on a full-scale operational unit, considering the influence of wave motions and current that accompany any significant wind. Thus, it is believed that wind tunnel tests on semisubmersible configurations offer the only feasible means of evaluating wind effects.

An example of the difference in results between the wind force and overturning moment calculated by ABS rules and those determined from wind tunnel tests is given in Fig. 10. The configuration is that of the Mohole design, presented in the 1965 TRANSACTIONS of the Society [6], and the ABS factors have been calculated in accordance with presently accepted practice. It can be seen that the calculated drag force is over 50 percent greater than that determined experimentally, whereas the calculated overturning moment is only about 20 percent greater than the test value (both referred to an assumed center of lateral resistance at half-draft). For this configuration, with its fairly open tubular array and smooth underbody, the increase in drag due to underside exposure when trimmed is seen to be modest, whereas the generation of lift force and lift-induced moment is significant.

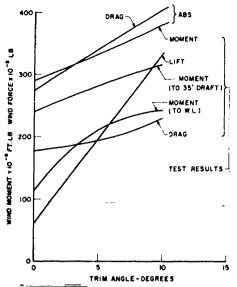


Fig. 10 Variation of wind forces with trim angle, 70-ft draft, 60-knot wind

Wind tunnel tests of a submerged running semisubmersible [7] with sharply faired columns showed good agreement with wind force calculations in the head direction but poor corre-lation in the beam direction This clearly indicates the effect of blockage of the elongated columns in the beam direction.

An extensive series of wind tunnel tests was performed on the In reference [9], de Jong demonstrates that wind force on a semisubmersible can be predicted with acceptable accuracy by a simple equation of the form:

$$F_x = \frac{1}{2} \rho V^2 A_x C$$

and

$$F_{\beta} = F_x \cos\beta + F_y \sin\beta$$

where A is the total projected area calculated without regard to blockage, and C is a coefficient. The result is thus very similar to the ABS formula if C incorporates the effects of shape and height coefficients. De Jong found the coefficient C to be 0.74 for level conditions and for various trim or heel angles,

$$C = 0.74 - [0.00025 \gamma^2 + 0.005 \gamma (1 - \cos \beta)] \sin \beta$$

(It must be noted that the vessels considered by de Jong have exposed girders under the upper deck. The coefficient C derived for the semisubmersible described in [6] which has a smooth plated underside is 0.45.) Attempts to develop an analogous expression for heeling or trimming moments did not meet with success, however. It will probably be necessary to develop a means for calculating the magnitude and centroid of the lift force in order to predict the moments satisfactori-

What is needed at this time is a systematic series of wind tunnel tests that would accomplish the following:

1. Correlate the low subcritical Reynolds number coefficients

on individual components of the model, with high supercritical Reynolds number coefficients anticipated for the full-scale

rig.

2. Determine the forces on bracing and column arrays in various attitudes to establish realistic blockage effects.

3. Test upper platforms, both smooth-bottom and exposed-girder type, through a range of heel angles, alone and in combination with various column arrays.

4. Perform similar tests on deckhouses, derricks, etc. to determine shielding effects.

In general, a series of "building-block" tests is indicated, to be confirmed by tests on complete assemblies, and as may be later substantiated by full-scale operational data. This is a forthcoming program that the panel hopes to put into effect in the next phase of research.

# Summary and conclusions

1. The extensive testing of a typical semisubmersible under extreme wind and wave conditions showed no capsizing tendency, even at righting moment to wind moment area ratios less than 1.0. It is demonstrated that the required wind heel stability criterion is not applicable.

A semisubmersible which has a reasonable wind heel equilibrium angle in still water will probably have satisfactory

stability in the presence of wind and seas.

3 Combined wind heel and wave action can induce slamming on the underside of the upper structure. Reduction of wind heel to obtain wave clearance can be a determining requirement for righting moment.

4. The observed lift force on a submerged body is seen to be accentuated in higher, steeper waves. A list can develop independently of wind heel if the metacentric height is below a

critical value under these conditions.

5. Wind force and moment determination on a semisubmersible by existing analytical methods is of questionable accuracy. Systematic wind tunnel testing of components and configurations offers the only immediate promise of resolving this situation.

6. Research by further testing and analysis should be continued toward a more precise definition of the stability patterns observed and toward firm establishment of realistic criteria.

7. The present practice of establishing wind criteria in the absence of waves, and wave clearance criteria in the absence of wind, should no longer be considered satisfactory. Wind speed should be taken in association with the wave heights and periods that can be produced in that regime, and the concurrent effects applied simultaneously.

# Part 2: Research program

# Introduction

The Davidson Laboratory proposed to conduct tests with models of two representative semisubmersibles in waves with the simulated effect of steady wind. The following vessel and environmental characteristics would be varied in an attempt to identify conditions of unsafe behavior:

- Draft (air gap)
   Vessel heading to common wind and wave direction
   Variable deck load (metacentric height)

Mooring type

Wind force (velocity)

Sea state severity

Initially, it was anticipated that a reasonable amount of testing would permit the identification of variables which would cause a vessel casualty of capsizing or downflooding. Vessel A is a 4-column, froting-type semisubmersible de-

Assessment of Stability Requirements for Semisubmersible Units

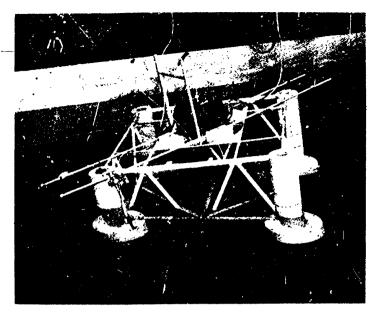


Fig 11 Instrumented Model A

signed by A. John Burnell, a member of Panel MS-3; Fig. 3 shows the configuration and principal dimensions. The panel believed that such a design, proportioned on a "stability-similar" basis from an existing series of 3-column units, would be representative of a number of rigs in service.

The following basic loading conditions were furnished by the designer:

Draft, ft	65	85
Weight, long tons	16,300	18,000
Vertical CG_ft	78.5	72.0

Both conditions included 2700 long tons of variable deck load, and the deeper draft was obtained by increasing the water ballast in the footings From 4300 to 6000 long tons.

Vessel B is a 6-column, twin-hull semisubmersible designed by the third author. Again, the panel felt that this configuration would be reasonably similar to a number of rigs in service. Figure 4 shows the configuration and principal dimensions.

The following basic loading conditions were furnished by the designer:

Draft, ft	50	70
Weight, long tons	21,600	24,280
Vertical CG. ft	65.5	59.6

Each condition included 2600 tons of deck load; the deeper draft was reached by increasing water ballast in the lower hulls by 2680 tons.

Using stock sizes of acrylic plastic sheet and tubing, 1/96-scale models of these vessels were fabricated The footings of Model A and the barge hulls of Model B were arranged such that adjustable amounts of water ballast could be used to alter the draft and the vertical center of gravity.

the draft and the vertical center of gravity.

As the testing and analysis proceeded under the guidance of the panel, three distinct but related phases were identified. In chronological order they were:

1. Susceptibility to capsizing.

2 Relative motion between deck and sea as a measure of tendency toward downflooding.

3 Wave-induced heeling

# Susceptibility to capsizing

#### Test details

The general objective of the test program was to explore a matrix of variables so as to identify critical combinations which would result in capsizing of the model of Semisubmersible

The first test session in September-October 1973 concentrated on searching for a capsizing situation. Although no capsizing or near-capsizing was encountered, a question was raised as to whether or not free pitching was inhibited when the leeward deck surface struck the water surface. Accordingly, all the peripheral panels of deck plating were removed, leaving only a center section, as shown in Fig. 11

a center section, as shown in Fig. 11

A brief second test session on November 3, 1973 was conducted to rerun several conditions and evaluate the effect of the "open deck" Shortly afterwards, the results of the two test sessions were presented to Panel MS-3 for their evaluation.

Since no capsizings had been registered with a standard survival-intensity wind force, the panel recommended that additional tests be run with a greater wind force, and with increased deck loading (decreased metacentric height). These changes would increase the area under the wind moment curve and decrease the area under the righting moment. When deck load was increased, water ballast was decreased by an equal amount to maintain a constant draft. The model deck was fully plated during the first test session; only the center panel was retained for the second and third sessions.

The third test series was conducted during January 1974. Table 1 presents the conditions covered during the three test sessions with Model A. The mooring and wind force simula-

Table 1 Capsizing susceptibility test program

Draft,	Heading,		$GM_{s}$	Maximum wave height,	Mooring		nd speed, kn	
ft	deg	long tons	ft	ft	type	0	100	140
65	90 	2700 2700 3600 4150 2700 2700 3600 4150	15.5 15.5 7.5 2.0 15.5 15.5 7.5 2.0	90 1 20 1 20 1 20 1 20 1 20 1 20 1 20	overridden overridden overridden overridden catenary none none	A A A A	A C C C	B B B B
85	90 	2700 3700 4500 2700 2700 4500 4500	21.5 13.5 7.0 21.5 21.5 7.0 7.0	120 120 120 120 120 120 120	overridden overridden overridden catenary none none none	 A A	B B A A B	B B B

Notes

OTES A denotes test with full-plated deck. B denotes test with center section of deck plated. C denotes tests with both deck plating configurations.



Fig 12 Wind moment simulation

tions are explained in the following sections.

Two types of simulated catenary moorings were used first represented an 8-point catenary mooring of 3-in stud-link chain, and used scaled lengths of bead chain having the desired scaled weight per foot. Each chain was pretensioned to 150 kips; the water depth was about 500 ft. The second simulation used the same size of chains to represent an extreme case where the windward chains are lost and the platform overrides the remaining two leeward chains. With the platform broadside to wind and waves, it drifts to leeward until the two chains attached to the port and starboard leeward columns, respectively, now lead to windward and thus reinforce the inclining moment imposed by wind and waves

The platform designer furnished values of wind force, center of wind force, and center of below-water resistance, for a range of angles of inclination to the point of deck edge immersion, that is, the "angle of downflooding." These data were calculated to meet the present requirements of regulatory agencies. The calculation assumes the wind moment to be a force couple formed by the wind force acting through its center of abovewater resistance, and an equal but opposite water force acting through the below-water center of resistance. No consideration

is given to forces imposed by mooring cables.

As a platform inclines, the projected sail area changes such as to increase the wind force and shift its center of application A simple device was constructed which applied a simulated wind moment varying with inclination according to the wind force and center calculations. As shown in Fig. 12, a horizontal line, attached to the forward end of a tubular frame projecting forward from the model deck, extended about five model lengths to leeward and then led vertically upward over two pulleys to a second hanging weight equal to the weight on the below-water line. Under the action of these two weights the

model inclined and the rise of the forward point of attachment of the "wind" line produced the desired increase of wind moment with inclination

The tests were conducted in Davidson Laboratory Tank 3,  $313 \times 12 \times 5.4$  ft depth. Irregular long-crested waves were generated with 100-wave reproducible samples used for each test run, thus permitting comparison of behavior of different vessel conditions in identical wave patterns.

The majority of runs utilized a wave sample which included a maximum wave with a crest-to-trough height of 120 ft and an apparent period of 16 sec, full-size, the entire 100-wave sample had a significant height of 65 ft and an average period of 19 sec.

Several runs were taken in a reproducible 100-wave sample with a maximum wave 90 ft high and an apparent period of 14 sec. This sample had a significant height of 69 ft with an average period of 15.5 sec, and was chosen because it had a number of steep, high waves in addition to the maximum

Model behavior during each run was recorded via closedcircuit television on videotape at model time scale. Selected portions of significant tests were also recorded with a high-speed 16-mm movie camera, when the color film is viewed at normal projection speed, motions are "slowed" to the ship's time scale

A standard computer program was used by a consulting firm to furnish the data necessary to plot cross curves of stability at 45 deg and 90 deg headings. Curves of static stability were then obtained for the test conditions of Table 1, and are shown in Fig. 13 along with curves of wind heeling moment. Note that all righting moment curves have a characteristic increase in slope when the windward footing(s) begin to emerge.

Known inclining moments were applied to the model in two conditions and the resulting heel angles were measured. The experimental moment-heel angle data, when scaled up to full size, were in close agreement with the computer results.

#### Test results

No capsizings or near capsizings occurred The 120-ft maximum wave did cause dangerous conditions such as green water on deck, impacts against the leeward deck structure when a static trim was induced by the wind force, and momentary immersion of the leeward deck edge. The frontispiece shows typical test scene

As might be expected, the static trim due to wind force was

Table 2 Test matrix for responses in regular waves

Heading, deg	Draft,	Winda	Deck load, long tons	GM, ft	Static incline, deg	Mooring
Vessel A						
45 deg	65	no	2700	15.5	0	none
45 deg	65	ves	2700	15.5	9	none
45 deg	65	yes	3600	7.5	12	none
45 deg	85	no	2700	21.5	ō	none
45 deg	85	yes	2700	21.5	6	none
Beam	65	no	2700	15.5	ŏ	none
Beam	65	ves	2700	15.5	10.5	none
Beam	65	ves	2700	15.5	11.5	over-
		•				ridden
Beam	85	no	4100	10.0	0	none
Beam	85	ves	4100	10.0	13	none
Vessel B		-				
Beam	70	no	4750	10.5	0	nono
Beam	7ŏ	yes	4750	10.5	10.5	none
Head	70	no	4750	12.45	0.5	none none
Head	70	ves	4750	12.46	7	
Beam	50	no	4150	$\frac{1}{9}$ 0	ó	none
Beam	50		1450			none
Deam	30	yes	1·1·0U	9.0	12.5	none

Wind force corresponding to 100-knot velocity.
 Longitudinal GM corresponding to same VCG as transverse GM of 10.5 ft at 70-ft draft.

smallest with the catenary spread mooring, and largest with the overridden catenary. An intermediate angle resulted when the wind force was opposed by an equivalent force acting through the center of below-water resistance, that is, the unmocred condition. Only four runs were made with the catenary spread mooring because of its stabilizing influence Beckwith [10] illustrates clearly the effective reduction in heeling lever due to catenary mooring lines

No large, resonant roll excursions were observed during any of the runs. By way of explanation, it is pertinent to examine the natural periods of the platform as determined from free oscillation experiments with the model

Variable load, tons	27	00
Draft, ft	65	85
Vertical CG, ft	78.5	72.0
Heave period, sec	21.5	21.5
Roll period sec	.18	38

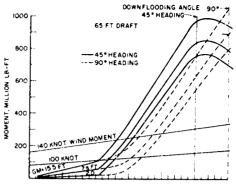
The survival sea states contained wave periods in the region of the heave natural period, and thus large heaving motions were observed. However, the natural rolling periods were well outside the period content of the sea states, and, in consequence, no large rolling motions which might lead to capsizing were observed. As the deck load was increased, the CG was raised, thus causing the natural rolling periods to become larger and further removed from the largest wave periods in the sea

In summary, capsizing of the intact Vessel A could not be achieved on model scale even with a metacentric height of 2 ft combined with the dynamic effects of a 140-knot wind and a wave 120 ft in height.

As a result of these findings, it was decided to omit a similar investigation using the model of the twin-hull Vessel B. In addition to the stabilizing influence of an increase in righting moment slope as the windward hull emerges, Vessel B has the benefit of a watertight upper hull which develops an additional buoyant force against overturning as its leeward side becomes

#### Relative motion between deck edge and wave surface

Since model tests had shown that waves and steady wind



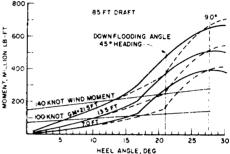


Fig. 13 Moment curves for Vessel A

were unlikely to cause capsizing, the investigation shifted to other aspects of stability requirements in a seaway recommendation of Panel MS-3, Model A was prepared for a series of tests in regular waves to document its dynamic responses. Attention was directed to measurements of the rise of the wave surface relative to the leeward deck edge of the platform. It was planned to investigate influence of variables such as wave heading, wind-induced static heel, deck load and mooring configuration. These tests were conducted in January

After reviewing the results of the dynamic response tests for Vessel A in May 1974, the panel recommended that a model of Vessel B should be put through a similar series of tests. sessions were conducted during the fall and winter of 1974-

#### Test conditions

Figure 11 shows Model A equipped with instrumentation to

- heave at deck center.
- pitch or roll.
- 3 relative motion abreast of center of leeward caisson,
  - elevation of incident waves.

The signals from these instruments were transmitted by cables to signal conditioning units and thence to a light-beam oscillograph which produced time histories on chart paper.

Table 2 lists the conditions of the two vessels. The simulated wind heeling moment used for Vessel A was calculated by the designer. Since Vessel B is quite similar to the Project Mohole platform described in [6], wind tunnel test results for the Mohole

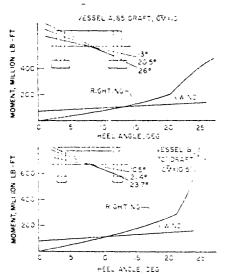


Fig. 14. Stability curves, drilling draft, 100-knot wind broadside

platform model [11] were adapted for Vessel B.

It was decided that the major part of the text matrix should utilize the unmoored condition which is assumed when calculating wind heel according to the ABS rules. Only one moored case was investigated and that involved an overridden chain mooring

The loading conditions for Vessel A duplicated certain of the conditions used in the capsizing susceptibility program; the righting moment and wind heel moment curves for these cases may be found in Fig. 13. Also included was one loading which just met the ABS stability criterion at the 85-ft draft; the mo-

ment curves are shown in Fig. 14.

A basic loading condition for Vessel B was chosen such that in a beam heading at the 70-ft draft, the vertical center of gravity (VCG) met the ABS stability criterion, Fig. 14. This VCG was retained for the head-on condition at the same draft. Deballasting from a 70-ft to a 50-ft draft involved removing water from the lower hulls, and the resulting stability exceeded the minimum needed to meet the criterion at the 50-ft draft. All righting moment data for Vessel B were obtained by inclining the model to the point at which the waterline reached the underside of the upper hull at the caisson center (Fig.

#### Test results

For presentation purposes, a wind axis coordinate system is employed for Vessel A with wind and wave advance directed along the x-axis. The symmetry of Vessel A is such that bow, stern, port, and starboard are interchangeable. For simplicity, rotation about the transverse y-axis will be termed roll, ¢ Heave, z, is the amplitude of vertical motion of the midpoint of the deck. The rise and fall of the water surface along the axis of the leeward column is RM, the relative motion amplitude.

The wave amplitude is  $\zeta_a$ . Vessel B, on the other hand, has only a long tudinal plane of symmetry, and the usual definitions of roll and pitch will be used in association with the customary body axis convention.

Amplitude ratio results are presented in tabular form in Appendix 1.

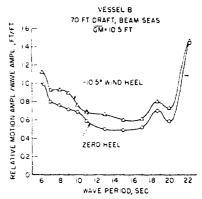


Fig. 15 Relative motion response curves

Figure 15 presents relative motion response curves for Vessel B at a 70-ft draft with and without the effect of 100-kt wind The increase in static draft at the axis of the leeward columns is 20 ft due to wind heel, in this condition, relative motion is measured with reference to the static heeled water-The measured natural periods for the drilling draft of each vesse! were

	Vessel A	Vessel B
Heave, sec	21.5	22.5
Roll, sec	55.5	55.0

The trend of relative motion with wave period, illustrated for Vessel B at drilling draft in Fig. 15, is reasonably similar to that for Vessel A at drilling draft. Relative motion amplitude has been presented in normalized form on the assumption that it is proportional to wave amplitude. In the region of a 6-sec wave period, the normalized relative motion is close to unity. Observing the model in these relatively short waves, one can see that the platform motions are small, particularly heave, and thus relative motion amplitude is almost identical to the wave amplitude

In the region between 8 and 20 sec, moderate heave and rolling motions are phased such as to produce relative motion ratios less than unity. At the natural heaving period of 22.5 sec, relative motion reaches a peak due to a resonant heaving motion 90 deg out of phase with wave elevation. At periods beyond 23 sec, relative motion approaches zero.

#### Prediction of responses in irregular seas

One objective of defining the dynamic responses of a model in regular waves is to obtain response operators which can be used to predict statistics of response in irregular waves. An energy spectrum of the desired sea state is combined with the response operator to obtain a response spectrum.

A necessary condition for successful application of this commonly used method is that the response must vary linearly with wave amplitude at any given wave frequency. Given this linearity, there is much evidence in the literature to show that good agreement is obtained between the statistics of a response obtained

by prediction, using a given sea spectrum, and
by measurement, during tests of the vessel in a sea state defined by that spectrum.

Unfortunately, there is evidence that semisubmersible motion responses are less linear than one would desire. Kistler and Nash [12] have done a careful study of heave linearity with a

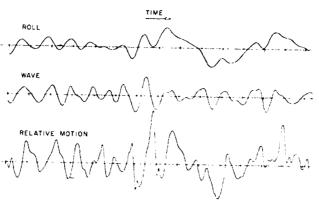


Fig. 16 Chart record, Vessel B, 20-ft significant height beam seas

model similar to Vessel B. The areas of nonlinearity they reported have a direct influence on the relative vertical motion responses being investigated here.

# Comparison of predicted and measured relative motion

The loading condition which met the ABS stability criterion for each vessel at its drilling draft (see Fig. 14) was adopted for this phase of testing. Sea states with significant heights of 20, 28, 35, and 46 ft, full size, were used in tests of each model, and the wave spectra were computed from recorded time histories. Averages of the one-third highest (significant) values and five percent highest values of relative motion were computed from time history records.

The measured wave spectra were then used with experimental relative motion response operator results from Appendix 1 to obtain predicted relative motion response spectra. The area under each RM spectrum is the variance  $\sigma^2$ , and various statistical averages can be derived by multiplying  $\sigma$  by appropriate constants. The average of the five percent highest single amplitudes of relative motion was chosen as a measure of maximum wave rise; this average is given by  $2.81\sigma$ .

Figure 5 shows a comparison of predicted and measured values of the average of 5 percent highest values of wave rise at the leeward caisson of Vessel A; results for zero static heel and 13-deg static heel due to a wind force corresponding to a 100-knot steady wind are presented. Maximum values are also plotted Figure 6 gives a comparison of similar results for Vessel B. The following points can be made about these two figures, keeping mind that these results are for drilling draft conditions meeting the ABS stability criterion.

At zero static heel there is adequate freeboard to keep wave rise well below deck level, even in sea states with significant heights approaching 50 ft.
 With 100-knot wind heel, the reduced freeboard at the

With 100-knot wind heel, the reduced freeboard at the leeward caissons is still sufficient to keep wave rise below deck level in sea states up to 40 ft significant height.

3. State-of-the-art prediction methods consistently underestimate the wave rise.

Concerning Item 3, an aspect of model behavior was observed which may contribute to an understanding of why measured motion is greater than predicted

Figure 16 is a tracing of a portion of the chart record for Model B with a 10.5-deg static heel in beam seas having a significant height of 20 ft. The vessel responds normally to a series of five short waves of moderate height. Then a high, steep

wave with an apparent period of about 11 sec and a crest-to-trough height of about 26 ft passes the model. A roll to leeward is induced and persists as oscillations at wave encounter period superimposed on an oscillation at the-natural rolling period of 55 sec. The rolling behavior is reflected in the relative motion trend. Model A showed similar behavior in the same sea state.

A long-period oscillation of such magnitude tends to increase the statistical average of relative motion. Also, the conventional prediction technique does not include the contribution of such an oscillation whose frequency is below the band of frequencies covered by the wave energy spectrum.

covered by the wave energy spectrum.

In summary, the original objective of this phase had been to investigate the influence of selected variables on relative motion between the vessel deck edge and the sea surface. Implicit in this course of action was the belief that a reasonably accurate prediction of relative motion in a seaway could be made using regular-wave responses. Accordingly, the test program concentrated on defining regular-wave response curves for use in such predictions. However, predicted relative motion in a sea state was consistently lower than measured motion, for each vessel

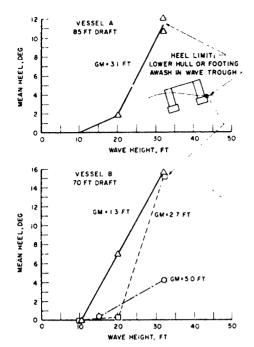
This finding tended to place the relative motion results in limbo pending resolution of the apparent deficiencies in the prediction process. An obvious candidate for further investigation was the long-period oscillation in roll and relative motion apparently induced by a short, steep wave

# Wave-induced heeling

#### Observations and explanation of mean heel

The occasional occurrence of a long-period oscillation in roll appeared to be triggered by a short, steep wave having an apparent period in the region of 10 sec and a height in excess of 20 ft. It is believed that this behavior is related to the tendency of models of both vessels to assume a steady heel in regular beam waves with periods in the region of 10 sec and heights in excess of 20 ft

A short series of exploratory tests of the two models was conducted in late October 1974, and it was shown that such wave-induced heel increased as either (a) the wave height increased, or (b) as the GM, and hence the righting moment slope, was decreased; the charts in Fig. 17 illustrate these trends. It should be noted that there is a limiting value of mean heel which occurs when the upper surface of a footing or lower hull



Mean heel in 10-sec regular beam waves

just reaches the surface of a wave trough, as illustrated in the

sketch alongside each chart in Fig. 17

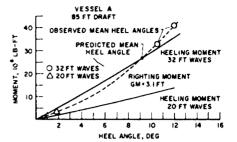
If such large heel angles could occur when static stability levels were relatively low, it seemed clear that an attempt should be made to determine the GM and righting moment necessary to avoid such unsafe behavior. What was needed was a mathematical model of the mean heel phenomenon so as to identify the contributions of those variables whose influence had already been observed in experiments, that is, depth of submergence, wave height and period, and GM.

The mean heel phenomenon had been observed first in connection with a proprietary model test. At that time J. F. Dalzell of Davidson Laboratory had conjectured that the steady heel might be explained by knowing that a body shallowly submerged under waves is subjected to a steady vertical lifting force which increases as the submergence depth decreases Thus, at a small heel angle, the upside hull of Model B would experience a larger lifting force than the downside hull, resulting in a heeling moment An equilibrium condition of heel could then be explained by a balance between heeling and static righting moments.

Appendix 2 reviews published formulations for the steady vertical force acting on a circular cylinder and bodies of revolution under regular waves. It is also shown how these for-mulations have been adapted for application to the footings of Vessel A and the noncylindrical lower hulls of Vessel B.

#### Comparison between calculated and measured mean heel

In addition to the test results of mean heel in 10 sec × 32 ft waves shown in Fig. 17, measurements were obtained in 10 sec × 20 ft and 12 sec × 40 ft waves (Models A and B), and in 9 sec



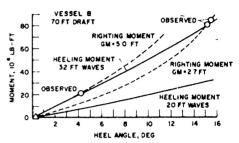


Fig. 18. Predicted and observed mean heel angles in 10-sec regular beam waves

× 30 ft waves (Model B). These seven cases were chosen for calculation of wave-induced heeling moment by the procedure outlined in Appendix 2 The heeling moment, equation (4), was solved for values of heel angle in 4-deg increments up to 16 deg, assuming the vessel initially upright

Righting moment curves, corresponding to the various GM values used in the tests, were constructed. The calculated heeling moment curves were shown on the same charts; a predicted equilibrium heel angle was defined by the point of intersection of heeling and righting moment curves. shows curves for both vessels in 10-sec waves, with experimentally measured mean heel angles superimposed. agreement between predicted and observed mean heel angles in 32-ft-high waves is quite good considering the assumptions made in the calculation procedure. Agreement was not as good for Models A and B in 12 sec  $\times$  40 ft, and B in 9 sec  $\times$  30 ft waves, with differences between predicted and measured being 4, 2, and 3 deg, respectively

When the height of the 10-sec waves is reduced from 32 to 20 ft, the heeling moment is reduced by 60 percent. Since the resulting heeling moment curves now fall entirely below the righting moment curves, there should be zero heel, the measured heel angles are, in fact, very close to zero.

Thus, the method of calculating wave-induced heeling in regular waves appears to work reasonably well in accounting for the effects of varying wave period and height and GM. It should be possible in principle, therefore, to calculate the minimum GM required to avoid a steady wave-induced heel in any given regular-wave condition.

Unfortunately, real seas are random rather than regular. Accordingly, the next step is to find a way to apply the pre-diction method to a vessel in a random sea state. The randomness of a sea state precludes the existence of a steady wave-induced heel. Instead, an occasional long-period rolling oscillation occurs as shown in Fig. 16. Since roll oscillations at wave encounter periods are superimposed on the long-period

oscillation, peak roll angles are larger. Figure 19 shows the largest roll angles (in one direction) measured in 100-cycle samples of motion for Models A and B for various combinations of GM and significant wave height. For reference, a curve of largest double amplitude/2 is included, since double amplitudes are independent of any bias effects. All data shown are from tests without simulated wind heel.

There is a definite trend to larger roll angles as GM is reduced, and in each case the largest roll angle occurs in association with a long-period oscillation in roll Also, as GM is reduced, the roll time histories show that the amplitude of a long-period oscillation increases.

Since an 85-ft draft for A and a 70-ft draft for B correspond to drilling conditions, significant wave heights greater than 40 ft may inhibit operations due to intolerable heave and surge motions; heights of 30 ft are more realistic for these drafts. In such seas, the 10.5-ft GM (ABS criterion) for Vessel B results in a peak roll just under 4 deg to one side. Reducing the GM to 5 ft doubles the peak roll angle to just under 8 deg; similar trends apply to Vessel A

Another interpretation of the results in Fig. 19 is that a GM may exist for a vessel which results in peak roll angles to one side only slightly greater than half the largest double amplitude of roll. The implication is that this level of static stability insures against the occurrence of a long-period roll oscillation with its accompanying increase in peak roll angle to one side.

Until further testing furnishes more definite results of minimum GM needed to avoid long-period roll oscillations, a prediction method using regular-wave responses may be used. The following procedure was selected for evaluation

- Assume a range of regular wave periods starting with 8
- 2. Choose a wave height for each period such that it (a) exceeds 20 ft but is less than 50 ft; and (b) results in steepness ratios which decrease uniformly as period increases

  3 Assume that at zero heel the slope of the static righting
- arm curve equals the slope of the wave-induced heeling moment curve.
- 4. For each wave period and corresponding height, solve for GM using the equality of Item 3.
- 5. The largest value of GM will then be the limiting value which avoids wave-induced heeling.

To meet the requirements of Item 2, a modification of an ABS wave height formula for ship bending moments in waves has been used

Wave height = 0.75 (wave length)06

resulting in the following wave characteristics.

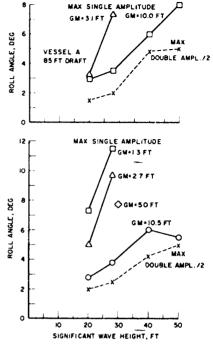
Period.	Length,	Height,	Length
sec	ft	ft	Height
8	328	24.2	13.6
9	415	27.9	14.9
10	512	31.7	16.1
11	620	35,5	17.5
12	737	39.4	18.7

Since the resulting wave heights and steepness ratios appear reasonable, they will be used to illustrate the application of the

Appendix 2 shows the algebraic steps used to obtain the following formula for GM required to avoid wave-induced

$$GM = 2k^2 \zeta_a^2 \frac{\nabla}{\nabla_a} \left[ \frac{I_1(2kR)}{kR} \right] (4kb^2 + 2d)e^{-2kh_0}$$

This expression was used to evaluate limiting GM values for



Peak roll angles in irregular beam seas

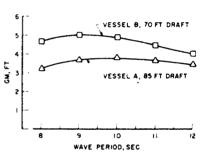


Fig. 20 Calculated min:mum GM to avoid wave-induced heel

each vessel at its drilling draft in the waves just listed. Curves of limiting GM versus wave period are presented in Fig. 20. Peak values of limiting GM are seen to be 5.0 ft for Vessel B and 3 8 ft for Vessel A in these wave

However, these calculated GM values correspond to stability levels at which long-period rolling was observed in the tests, Fig. Accordingly, the procedure should be modified in order to obtain better agreement. Ideally, the objective should be to predict the roll response of a vessel in an irregular-wave sea The result would be a time history which includes long-period roll oscillations when the GM is less than an acceptable minimum value. However, such an undertaking represents a substantial advance beyond the present state of the

#### Concluding remarks on research program

The Summary and Conclusions section of Part 1 contains certain conclusions which reflect a broad-based analysis of the results of research detailed in Part 2. Other research findings, which are based on model test results in waves with the simulated effect of steady wind, are as follows:

1. Although it is desirable to be able to predict underdeck

wave clearance, presently available procedures, utilizing regular-wave response operators, consistently underestimate the statistics of water rise relative to the vessel deck in irregular

waves

2 Wave-induced steady heel in short, steep regular waves was observed with both vessel configurations, as was the occurrence of long-period oscillations in roll in a sea state. These responses are accentuated when metacentric height is lowered.

3. A tentative method of calculating the wave-induced steady heel of a semisubmersible in regular waves is presented. This technique is suggested as a means of estimating the metacentric height needed to avoid the possibility of large-amplitude, long-period rolling oscillations in a sea state

#### Acknowledgments

The authors are indebted to the aforementioned fourteen sponsors for providing the financial support for the model test program The expert guidance offered by all past and present members of Panel MS-3 was of great assistance to the experimental team.

Mr. John F. Dalzell of Davidson Laboratory must be credited with the basic explanation of the phenomenon of mean heel due to wave action. Mr John D Adams, formerly on the Laboratory staff, did the initial work on the mathematical model of this phenomenon

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#### Appendix 1

65 ft draft, 45 deg seas, GM = 15.5 ft

	Zero Static Heel			9.0-Deg Wind Heel-			
Wave period, sec	Roll,	Heave,	Relative motion, RM/\(\zeta_u\)	Roll, φζ <sub>a</sub>	Heave, ≥/ζ,	Relative motion, RM/ζ <sub>a</sub>	
9 11 13 15 17 18.5 20	0.030 0.075 0.130 0.140 0.145 0.140 0.110 0.110	0.03 0.06 0.22 0.33 0.44 0.40  1.25 1.32	0.83 0.83 0.55 0.39 0.38 0.38  0.65 0.57	0.060 0.085 0.125 0.130 0.125 0.100 0.090 0.105 0.110	0.02 0.10 0.20 0.32 0.38 0.39 0.57 1.05 1.15	1.06 0.89 0.63 0.52 0.50 0.55 0.18 0.20	

Heel increases draft in smooth water to 89.5 ft at lee-

Vessel A 65 ft draft, beam seas, GM = 15.5 ft

	- Zer	o Static	Heel	10 5-Deg Wind Heel⁴			
Wave period, sec	Roll, φίζα	Heave, ≥/Ç <sub>u</sub>	Relative motion, RM/Sa	Roll,	Heave,	Relative motion, $RM/\zeta_a$	
8.0	0.075	0.11	0.71	0.090	0.09	0.72	
9.0	0.135	0.03	0.65	0.140	0.05	0.73	
10.0	0.160	0.10	0.52	0.150	0.11	0.57	
11.0	0.150	0.20	0.43	0.155	0.18	0.48	
13.0	0.140	0.31	0.33	0.145	0.30	0.43	
15.0	0.155	0.11	0.37	0.155	0.41	0.48	
17.0	0.155	0.43	0.12	0.145	0.42	0.54	
20.0	0.130	-0.68	0.62	0 1 3 0	0.87	0.64	
21.0	0.100	1.18	0.69	0.125	1.30	0.52	
22 0	0 105	1.39	0.64	0.125	1.28	0.37	
23.0	0.095	1 32	0.46				
21.0				0 135	0.93	0.21	

4 Heel increases draft in smooth water to 85.5 ft at lee ward caisson centerline

Vessel A 35 ft draft, 45 deg seas, GM - 21,5 ft

	Zero Static Heel				6.0·Deg Wind Heel⁴			
Wave period, sec	Roll,	Heave,	Relative motion, RM/\$u	Roll, Ç∑ı	Heave,	Relative motion, RM/\$a		
8.0	0.030	0.05	0.84	0.030	0.05	0.83		
9.0	0.055	0.05	0.86	0.080	0.08	1.09		
10.0				0.080	0.10	0.61		
11.0	0.105	0.16	0.59	0.110	0.19	0.69		
13.0	0.110	0.27	0.46	0.115	0.29	0.59		
15.0	0.115	0.34	0.45	0.115	0.30	0.58		
170	0.130	0.30	0.50	0.105	0.26	0.71		
20.0	0.080	0.00	0.78	0.110	0.75	0.98		
22 0	0.075	1.39	0.65	0.095	1.32	0.54		
24 0	0.055	1.27	0.18	0.070	1.48	0.16		

"Heel increases draft in smooth water to 101.5 ft at lee-

Vessel A 85 ft draft, beam seas, GM = 10.0 ft

	Zero Static Heel			13-Deg Wind Heel			
Wave period, sec	Roll, ∉/∫,	Heave,	Relative motion, RM/\$a	Roll, ¢/\$a	Heave,	Relative motion, RM/S <sub>a</sub>	
6.3	0.045	0.10	1.01	0.06	0.15	1.21	
7.0	0.000	0.11	0.98	0 035	0 14	0.92	
8.0	0.050	0.07	0.78	0 040	0.07	0.84	
9.0	0.090	0.04	0.86	0.120	0.02	0.93	
10.0	0.110	0.08	0.87	0.110	0.09	0.95	
11.0	0.120	0.17	0.70	0.125	0.15	0.83	
13.0	0.135	0.29	0.58	0.130	0.31	0.71	
15.0	0.125	0.34	0.54	0.125	0.34	0.63	
17.0	0.120	0.29	0.70	0.125	0.26	0.80	
18.7	0.085	0.32	081	0.09	0.20	0.94	
20.0	0.085	1.01	0.95	0.125	0.78	0.96	
22.5	0.075	1.64	0.68	0.075	1.89	0.90	

<sup>a</sup>Heel increases draft in smooth water to 104.4 ft at leeward casson centerline.

# Vessel A 65 ft draft

 $\begin{array}{ll} \text{45-Deg Seas, No Moorings} & \text{Beam Seas, Overridden} \\ GM = 7.5 \text{ Ft,} \\ 12\text{-Deg Wind Heel}^d & \text{Mooring } GM = 15.5 \text{ Ft,} \\ 11 \text{ 5-Deg Wind Heel}^h & \text{11 5-Deg Wind Heel}^h \end{array}$ 

	To Deg intild tree.		ar o beg mind item			
Wave period, sec	Roll, ç/ζ <sub>a</sub>	Heave.	Relative motion, $RM/\zeta_a$	Roll, √/Ša	Heave,	Relative motion, $RM/\zeta_a$
8.0	0.075	0.08	0.98	0.070	0.54	0.65
9.0	0.110	0.12	0.87	0.140	0.05	0.82
11.0	0.160	0 25	0.55	0.125	0.21	0.56
13.0	0.160	0.37	0.46	0.110	0.33	0.49
150	0.150	0.46	0.48	0.070	0.46	0.46
17.0	0.130	0.45	0.53	0.035	0.58	0 34
20.0	0.160	0.76	0.42	0.060	099	0 46
21.0	0 165	0.81	0.37	0.050	0.92	0.51
22.0	0.170	0.86	0.45	0.060	0.81	0.59
24.0	0.150	0.86	0.30	0.120	0.87	0.60

<sup>4</sup> Heel increases draft in smooth water at leeward caisson centerline to 98.0 ft
<sup>5</sup> Heel increases draft in smooth water at leeward caisson centerline to 87.5 ft

Vessel B 70 ft draft, head seas, GM = 12.4 ft.

	Zero Static Heel		7 0-Deg Wind Trim <sup>3</sup>			
Wave period, sec	Pitch, θ/ξ <sub>a</sub>	Heave, z/ζ <sub>d</sub>	Relative motion, $RM/\zeta_a$	Pitch, θ/ζ <sub>a</sub>	Heave,	Relative motion, $RM/\zeta_a$
6.1 7.0 8.0 9.0 10.0 11.0 13.0 15.0 17.0 18.7 20.0	0.030 0.020 0.050 0.100 0.135 0.155 0.160 0.150 0.120 0.110	0.02 0.04 0.02 0.08 0.15 0.26 0.43 0.51 0.52 0.36	1.41 1.02 0.87 0.86 0.71 0.55 0.41 0.38 0.40 0.47	0.045 0 070 0.100 0.150 0 175 0.185 0.185 0.185 0.125 0.130	0.03 0.05 0.12 0.22 0.20 0.27 0.41 0.50 0.51 0.42	1.10 1.05 0.93 0.76 0.71 0.62 0.54 0.58 0.60 0.95
22.3	0.040	1.92	1.26	0.170	1.69	1.02

#Trim increases draft in smooth water to 86 ft at leeward caisson centerline.

Vessel B

50 ft draft, beam seas, GM = 9.0 ft

Zero Static Heel 12.5-Deg Wind Heel

	-					
Wave period, sec	Roll, ε/ζ <sub>a</sub>	Heave,	Relative motion, $RM/\zeta_a$	Roll, ç/Ş₄	Heave,	Relative motion, $RM/\zeta_u$
61 7.0 8.0 90 100 110 13.0 15.0 17.0 18.7 20.0 22 3	0.070 0.030 0.140 0.205 0.195 0.215 0.200 0.175 0.140 0.115 0.100 0.110	0.32 0.23 0.21 0.08 0.09 0.25 0.11 0.58 0.52 0.43 0.37 2.60	0.83 0.80 0.83 0.77 0.68 0.57 9.38 0.41 0.34 0.47 1.18	r Co	Generally conharmo response upled pitc iods 11 to	y nic s. -bing

#### Vessel B

70 ft draft, beam seas, GM = 10.5 ft Zero Static Heel 10 5-Deg Wind Heek

Wave period sec	Roll.	Heave,	Relative motion, $RM/\zeta_a$	Roll. φ/ζ <sub>a</sub>	Heave,	Relative motion, RM/ $\zeta_a$
6 3 7.0 8.0 9.0 10.0 11.0 13.0 15.0 17.0 18.7 20.0 22.3	0.045 0.020 0.110 0.140 0.160 0.170 0.150 0.155 0.110 0.090	0.19 0.18 0.15 0.06 0.18 0.38 0.46 0.46 0.38	0.99 0.80 0.76 0.72 0.69 0.59 0.50 0.49 0.52 0.70 0.59	0.050 0.060 0.140 0.175 0.180 0.175 0.170 0.155 0.140 0.140 0.125	0.14 0 17 0.13 0.05 0.06 0.19 0.35 0.44 0.42 0.30 0.14 2.07	1.12 0.93 0.93 0.90 0.76 0.69 0.66 0.60 0.80 0.73 1.47

a Heel increases draft in smooth water to 89 9 ft at lee-

# Appendix 2

The phenomenon of a wave-induced steady mean heel of a semisubmersible in beam seas is related to the tendency of a submarine, hovering at shallow submergence, to rise toward the sea surface. The steady vertical force on a submerged body has been analyzed by a number of theoreticians who refer to it as a second-order force, that is, varying as the square of wave amplitude

Ögilvie [13] has given the solution of the second-order vertical force on a submerged circular cylinder under waves whose crests are parallel to the cylinder axis. Complete numerical results were obtained for the two-dimensional problem of a

resuris were contained for the two-dimensional problem of a restrained cylinder and a free, neutrally buoyant cylinder.

Coodman [14] performed direct integration of pressures over the hull surface of a slender body of revolution hovering under head and beam waves. His solution for beam waves is generally equivalent to Ogilvie's solution

Lee and Newman [15] used a slender-body approach which permits calculations for simple cylinders other than circular. The final expression for the steady vertical force is dependent in part on the longitudinal distribution of sectional area and added mass

All three referenced solutions for the steady force are of the following general form in deepwater waves:

15

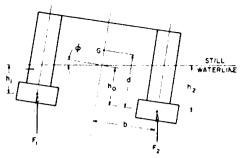


Fig. 21. Wave-induced steady vertical force

Force per unit length  $\propto k^2 \zeta_0^2 e^{-2kh} |f|$  (1)

where

 $k = \text{wave number} = 4\pi^2 gT^2$ 

 $\zeta_a$  = wave amplitude

 $\tilde{h}^* = \text{depth of body axis below stillwater surface}$ 

The function [f] in the Goodman solution and in a simplification of the Ogilvie exact solution is a Bessel function of wave number and body radius. In Newman's result, [f] involves body sectional area and added mass. All three authors avoid giving a physical explanation of the origin of the steady vertical force.

J. F. Dalzell of Davidson Laboratory conjectured that the second-order steady force was a possible explanation of the steady heel experienced by a semisubmersible in beam regular waves." He contended that, if the vessel had an average heel, it must be that the steady second-order vertical force  $F_1$  on one hull exceeded  $F_2$  on the other hull because of the depth-dependent exponential in equation (1). Thus, a steady heeling moment  $b \cos_e(F_1 - F_2)$ , equation (3), would be exerted in a sense to increase average heel. An equilibrium steady heel might thus be attained if the magnitude of the mean heeling moment equalled the static righting moment of the vessel. The Dalzell hypothesis was strengthened by an experimental observation that the mean heel could occur either to seaward or to leeward, thus confirming expectations based on theory

Since the footings of Vessel A and the lower hulls of Vessel B are not horizontal circular cylinders or slender bodies of revolution, any application of the foregoing treatments will require simplifying assumptions. Also, the presence of the vertical columns or caissons must be ignored if available theory is to be used.

A judgment must be made as to whether the submerged bodies should be considered restrained or freely floating, the two cases covered by theoretical treatments. Measurements taken during tests in steep regular waves included vessel heave and roll oscillatory motions which were combined by calculation to obtain resultant vertical motion, for a lower hull or footing. The wave orbital motion at mean depth of submergence of lower hull was calculated, and the motion ratio, lower hull/orbital was obtained, as well as the phase of vessel relative to orbital motions. The following results were obtained in a 10 sec × 32 ft wave:

	Mean	Lower hull motion	Phase
Vessel	submergence	Orbital motion	lag
Α	70 ft	0.60	50 deg
В	58 ft	0.73	20 deg

Clearly, neither vessel can be considered restrained since each has a vertical motion exceeding half the wave orbital motion

	Table 3		
kR	$\frac{I_1(2kR)}{kR}$	T, sec	k. 1 'ft
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9	1 00000 1 00501 1 02013 1.04568 1 08216 1 13032 1.19113 1 26585 1.35601 1.16352 1.59064	5 6 7 8 9 10 11 12 13 14 15 16 17 18	0.01909 0 03415 0.02053 0.61916 0.01514 0.01227 0.01013 0.00852 0.00726 0.00626 0.00545 0.00125 0.00379 0.00379
		20	0.00307

at depth—However, an assumption of free-floating would require a motion ratio of unity and zero phase lag—Since an assumption of complete restraint results in a larger value of steady vertical force, that is, a conservative result, all calculations have been made on this basis

Ogilvie's equation (31b) for a restrained circular cylinder and Goodman's equation (16) for a slender body of revolution give the steady vertical force per unit length in beam seas. By manipulation, the following can be obtained from either equation.

Force, length = 
$$\pi R^2 \cdot 2\rho g k^2 \zeta_a^2 \left[ \frac{I_1(2kR)}{kR} \right] e^{-2kh}$$
 (2)

When the Bessel function  $I_1(2kR)$  is divided by kR, the quotient is close to unity over a practical range of kR values, as given in Table 3

To apply this expression to the barge-form lower hulls of Vessel B or the footings of Vessel A, these shapes will be approximated by equivalent horizontal circular cylinders, as follows

a. The total force on a cylinder of length L is Force =  $\pi R^2 L$ . Substitute body volume  $\nabla$  for  $\pi R^2 L$ , thus leaving body radius R only in the Bessel function expression

b. Since the Bessel function expression is relatively insensitive to changes in R. Table 3, let R be approximated as (i) Vessel  $\Lambda$ --let equivalent cylinder length = 2R, volume =  $\pi R^2 \cdot 2R$ , and thus  $R = (\nabla/2\pi)^{1/3}$  where  $\nabla$  is footing volume; and (ii) Vessel 3—let  $R = \sqrt{A/\pi}$  where A is midship sectional area of lower hull

A heeling moment is caused by a difference in the steady vertical forces  $F_1$  and  $F_2$  when the depths of submergence of the two hulls,  $h_1$  and  $h_2$ , are different, Fig. 21. The moment about the center of gravity reduces to

$$M = b \cos \varphi(F_1 - F_2) + d \sin \varphi(F_1 + F_2)$$
 (3)

If  $F_1$  and  $F_2$  are evaluated by equation (2), the moment becomes

$$M = 2\rho g \nabla k^2 \zeta_d^2 \left[ \frac{I_1(2kR)}{kR} \right] \left[ b \cos \varphi (e^{-2kh_1} - e^{-2kh_2}) + d \sin \varphi (e^{-2kh_1} + e^{-2kh_2}) \right]$$
(4)

Depths  $h_1$  and  $h_2$  vary as  $\varphi$  and the upright depth to the midheight of lower hulls or footings,  $h_0$ 

$$h_1 = (h_0 - b \tan\varphi)\cos\varphi$$

$$h_2 = (h_0 + b \tan \varphi)\cos \varphi$$

Table 3 lists values of the Bessel function expression and a

conversion of period T to wave number k for deep water. When heel angle is small, an equilibrium condition of static righting moment equal to heeling moment can be written

$$\rho g \nabla_s G M \operatorname{sin} \varphi = 2\rho g \nabla k^2 \xi_a^2 \left[ \frac{I_1(2kR)}{kR} \right] B \tag{5}$$

where

 $\nabla_t = \text{vessel displacement volume}$ 

$$GM \sin \varphi = 2k^2 \zeta_a^2 \frac{\nabla}{\nabla_s} \left[ \frac{I_1(2kR)}{kR} \right] B$$

$$GM \sin \varphi = AB$$

w here

$$A = 2k^2 \zeta_a^2 \frac{V}{\nabla_x} \left[ \frac{I_1(2kR)}{kR} \right]$$

$$B = (h\cos \epsilon e^{-2kh_1} - e^{-2kh_2}) + d\sin \epsilon e^{-2kh_1} + e^{-2kh_2})$$
  
$$h_1 = (h_0 - b\tan \epsilon)\cos \epsilon$$

$$h_2 = (h_0 + b \tan \varphi)\cos \varphi$$

but

Substituting

$$\begin{split} GM\psi &= \Lambda \left(h(e^{-2kh_0}e^{2kh\psi} + e^{-2kh_0}e^{-2kh\psi}) \right. \\ &+ \left. d\psi(e^{-2kh_0}e^{2kh\psi} + e^{-2kh_0}e^{-2kh\psi}) \right] \end{split}$$

$$GM\varphi = Ae^{-2kh\phi}[h(e^{2kh\varphi} - e^{-2kh\varphi}) + d\varphi(e^{2kh\varphi} + e^{-2kh\varphi})]$$

$$2 \sinh 2kb\varphi = e^{2kh\varphi} + e^{-2kh\varphi}$$
$$2 \cosh 2kb\varphi = e^{2kh\varphi} + e^{-2kh\varphi}$$
$$GM\varphi = Ae^{-2kh\varphi}(2h \sinh 2kb\varphi + 2d\varphi \cosh 2kb\varphi)$$

but

$$\sinh 2kb\varphi \approx 2kb\varphi$$
$$\cosh 2kb\varphi \approx 1$$

Substituting.

$$GM = 2k^2 c_u^2 \frac{\nabla}{\nabla_x} \left[ \frac{I_1(2kR)}{kR} \right] (4kh^2 + 2d) e^{-2kh_0}$$
 (6)

This is the minimum CM to avoid wave-induced heel in a regular beam wave  $(k_{-j,a})$ . Note that  $\nabla$  is taken as the volume of two footings for Vessel  $\lambda$ , or one lower hull for Vessel B

# STATEMENT OF ALAN C. McCLURE & ASSOCIATES, HOUSTON, TEX.

Mr. McClure. Thank you, Mr. Jones and gentlemen of the committee.

I am testifying as a naval architect. I am president of Alan C. McClure & Associates, Inc., Houston, Tex. Our work involves naval architecture, marine engineering, and design and engineering studies of all types of floating craft, but primarily those of the oil industry.

I have been involved in problems concerning drill rigs and similar structures for about 20 years. Part of this involvement has been the study of requirements and design criteria for semisubmersibles, starting with one of the early rigs designed in the early sixties, about the same time the Blue Water One and the ODECO Ocean Driller were being built.

Since that time I have been engaged continuously in studies and design projects related to semisubmersibles, one of which is record-

ed in the article you have—

Mr. Breaux. Mr. McClure, would you excuse me, if you could, I am having a little bit of difficulty hearing. Could you use the mi-

crophone a little more or speak up a little louder?

Mr. McClure. The article, which I believe you have read, is one isolated study concerning the stability characteristics of semisubmersibles. This work was performed under the auspices of the Society of Naval Architects and Marine Engineers by one of their many technical panels. The sponsoring group consisted of representatives of about 14 companies; drilling contractors, oil companies, designers such as ourselves, and other interested parties.

The study concluded that the generic type that we call "semisubmersible" has a high degree of inherent stability, provided the rig remains intact, that is, it has no normally dry compartments, open to the sea, since the particular tests covered only the intact mode. We concluded that stability under the present rules is more than adequate to keep the rig safe from the forces of waves and wind, as

far as resistance to capsizing is concerned.

We felt there should be attention given to the possibility of the upper hull or deck structure being subjected to wave impact, and that this may form the basis for a different concept of stability re-

quirements.

As you may have noted, the study suggested that tests in wind tunnels be carried out to improve our knowledge of wind effects on semisubmersibles. This work is now in progress by the same committee and is a part of our continuing effort to improve our knowledge of the design of semisubmersibles.

Now, I have not had any direct involvement with the Ocean Ranger or with ODECO but I would be happy to answer any ques-

tions of a general nature regarding semisubmersibles.

That concludes my testimony.

Mr. Jones. I have two or three short questions I hope.

In your paper on stability you raise serious questions about the validity of the current methods of testing. You suggest wind-tunnel testing. Question: Would the Ocean Ranger have been subjected to wind forces that you could not test for without wind-tunnel testing?

Mr. McClure. We concluded that the current methods of calculating wind effects were probably overly conservative and that, in general, rigs could probably carry greater deck loads if the criteria were changed accordingly. I am not sure I grasp the drift of your question.

Mr. Jones. I think your answer is satisfactory.

You heard this morning the discussion on portlight failure. Under what conditions would the portholes in the barge control

room be subjected to wave pounding?

Mr. McClure. Certainly, under conditions of waves as high as were reported at that time, one would expect that waves would reach as high as the upper hull, that is, the wave crests would reach that high. One would not expect such heavy impact as to damage a 2-inch-thick porthole, however. That was surprising to me.

Mr. Jones. In your experience, what is the likelihood of a portlight being smashed by wave action? Or, is there any other condition that could smash a portlight?

Mr. McClure. I am very surprised that the 2-inch-thick portlight was smashed, and it would be surprising if wave action alone would cause such damage.

Beyond that, the only conjecture would be that some other object

might have struck it.

Mr. Jones. What other kind of object could that possibly be?

Mr. McClure. Floating debris, such as a piece of timber.

Mr. Jones. Are you familiar with the electronic control devices used to regulate the ballast in the 16 compartments of a rig such as the Ocean Ranger?

Mr. McClure. I am not familiar with the Ocean Ranger system:

Mr. Jones. Were you surprised to hear that the water entering the smashed porthole would short out the control panel and render the ballast controls useless?

Mr. McClure. It is not unusual for a panel to be rendered useless by water flooding. However, as was mentioned this morning, there is always a failsafe mode which one would think would prevent a continuing succession of failures.

Mr. Jones. Thank you.

There is a report that the electrical short caused all the ballasts valves to open. Is it possible that the design of the electrical controls could permit a life-endangering valve malfunction as a result of a circuitory failure?

Mr. McClure. Not having studied the system, I do not know. It certainly must be considered possible until one finds out from anal-

ysis that it is not possible.

Mr. Jones. Are those vessels normally designed with redundancy features?

Mr. McClure. Yes, there would be redundancy to a certain extent.

Mr. Jones. Then where are the mechanical override features for

the ballast valves located?

Mr. McClure. I am not certain where they were located in this rig. There would be manual operators in the pumproom that may or may not have been accessible.

Mr. Jones. Would you care to voice an opinion as to whether

they should be located elsewhere?

Mr. McClure. I do not know whether other rigs have deck monitored ballast valves or not. Certainly the main flooding valves could be deck operated, but I think, in general, they would be power operated from a remote station.

Mr. Jones. Would it be preferable to have them on the deck

rather than down in the pumproom?

Mr. McClure. There would be some advantages to deck monitored operators.

Mr. Jones. Are there any design problems in having deck moni-

tored operators that you know of?

Mr. McClure. There would be design problems, yes, mechanical

problems that are not insuperable.

Mr. Jones. Finally, your studies indicate that, as long as a semisubmersible is intact, then "it is one of the most stable vessels in high seas." Now, what constitutes intact? And please describe the role of ballast controls in maintaining an intact state.

Mr. McClure. Well, intact means that there are no compartments open to the sea that are normally closed and that the compartments normally carrying ballast are ballasted at their proper levels. In other words, the vessel has its proper still-water water-

line and attitude.

Mr. Jones. What percentage of submerged structural failure can

be tolerated before the vessel ceases to be intact, such as water

coming in the portholes, et cetera?

Mr. McClure. The classification society rules are rather specific on this. They require that the safety of the rig not be jeopardized should certain compartments to be open to the sea; that is, should these compartments be open, they will not cause the rig to take such an attitude that it would flood down to rig openings, such as vents and air intakes.

This depends on the detailed design of the rig, but, generally, one or two compartments, depending on their sizes or locations, are considered to be flooded during the damage stability analysis.

Mr. Jones. Thank you, Mr. McClure. Mr. Breaux?

Mr. Breaux. Thank you, Mr. Chairman.

Thank you, Mr. McClure, for your statement.

As you know much better than I, rigs are designed to withstand certain standards of wind and wave strength and size. We have been told that in this case the rig was designed to withstand 115 mph winds and 110-foot seas. My question to you is, as a naval architect, is there some point prior to a weather forecast of that magnitude that it would be unsafe for crewmembers to occupy a rig? In other words, do you push it to its limit, or do you, if you have a weather forecast of say, 100 mph, take action to move personnel from that facility?

Mr. McClure. Well, being involved with the design area, we are also involved to some extent in the preparation of operating manuals. We specify the design conditions that the rig is designed to withstand and under which we believe the rig is safe. If conditions exceed those standards, it would be prudent to evacuate the rig. That is done in the Gulf of Mexico when hurricanes are forecast.

Mr. Breaux. In other words, you do not, as a matter of procedure, wait until you get a forecast that predicts limits of what the rig is certified to withstand before you take some precaution?

Mr. McClure. I cannot comment on the operators' procedures in detail. I can only say that we specify, as designers, conditions under which the rig would be safe. It is up to the operator to determine exactly what criteria he will use for ordering evacuation.

Mr. Breaux. As a naval architect, considering a rig that is built to withstand 115 mph winds. If the winds were forecast at 110 mph, from an architect's standpoint, would that rig be safe for human personnel to be on board?

Mr. McClure. Are you making the difference between 110 mph

and 115 mph?

Mr. Breaux. I am trying to find out, how far do we wait until we push the rig toward the maximum design specification before we ought to be considering evacuation rather than trying to operate it or stay afloat on it.

Mr. McClure. I think you would have to talk to the operators to

determine just how they interpret weather forecasts.

Mr. Breaux. What you are telling this committee is that it was designed to withstand 115 mph winds and since that is the design standard you are saying it should be able to withstand winds of that velocity?

Mr. McClure. Yes, but there are certain factors of safety that are applied to any design even under the maximum allowable conditions; therefore, we do not expect it to immediately crater if the

wind gets to 116 mph.

Mr. Breaux. Let us talk about inspection certificates, both the ABS inspection that is done on vessels and the Coast Guard certification inspection on vessels. Would you describe for the committee the difference between the two—rank them as far as importance, and indicate what both of these types of inspections are designed to accomplish.

Mr. McClure. The procedures are continually changing in detail, and the two inspections are cooperative efforts in that they are not redundant. There has been an effort, especially recently, to avoid overlapping responsibility and redundancy in these inspections.

Mr. Breaux. They are both designed to look at different features

of a vessel?

Mr. McClure. Yes. Generally, ABS is responsible for the safety and seaworthiness of the hull, the structure, the stability, water-tight integrity, and systems on board; the Coast Guard is concerned with those same things, but they accept the ABS criteria and certification for certain of these features.

Mr. Breaux. Would either an ABS inspection or a Coast Guard certification inspection normally look into porthole design and ac-

ceptability of portholes?

Mr. McClure. Yes, that would be a major factor with either.

Mr. Breaux. With either inspection?

Mr. McClure. Yes.

Mr. Breaux. Are the deadlights covering a porthole, normally designed in a manner that would insure that they themselves would not be able to cause a crack or a break in the glass that covers a porthole?

Mr. McClure. Yes, they could be swung in place and latched

without damage to the porthole.

Mr. Breaux. How important is the location of the control panel, which controls the ballasting for semisubmersible vessels, within

the control panel room?

Mr. McClure. Some panels are located below the hull where the operator can actually read the waterline depth marks on the columns, and some are located above deck, relying on remote instruments.

Mr. Breaux. From a naval architectural standpoint, is either lo-

cation a better location than the other?

Mr. McClure. I think either system can be used. I would say in retrospect, now, that I would prefer to have the ballast systems well above the main deck.

Mr. Breaux. For the record, how important is the control panel for the ballasting operation of a semisubmersible? How important

is that piece of equipment and that operation to a vessel?

Mr. McClure. It is a very important piece of equipment and has to be operated properly, for the vessel has large amounts of ballast inherently because of its method of operation.

Mr. Breaux. Is a typical control panel or control room for ballasting purposes normally designed to be operated by an individual

or by a computer or by a combination of both?

Mr. McClure. By individuals. They are manually operated but

with direct readouts of all tank levels and other information.

I think, in general, they are all manually operated. The computer may provide output readouts and information but the actual operation is controlled by the individual.

Mr. Breaux. Thank you very much.

Thank you, Mr. Chairman.

Mr. Jones. Thank you, Mr. McClure. Our next series of witnesses will be the inspection panel, consisting of Mr. John Borum of the American Bureau of Shipping, Rear Adm. Clyde T. Lusk, Chief, Coast Guard Office of Merchant Marine Safety, and Mr. Price McDonald, Chief of the Offshore Field Operations, Department of the Interior. Will you gentlemen come around and be seated please.

According to my sheet, Mr. Borum, you are first and, therefore, I

recognize you.

# STATEMENT OF JOHN BORUM, AMERICAN BUREAU OF SHIPPING

Mr. Borum. Mr. Chairman and members of the committee, I am John F. Borum, vice president of the American Bureau of Shipping.

On behalf of the management of the American Bureau of Shipping, I would like to thank you for the opportunity to present our comments and I will respond to any questions you may have concerning the Ocean Ranger within the scope of the construction survey and subsequent inservice survey.

For classing mobile offshore drilling units, ABS applies its rules for building and classing mobile offshore drilling units and the applicable divisions of its rules for building and classing steel vessels.

The ABS rules were drawn from the best of current engineering in naval architectural practices for the design and construction of commercial vessels combined with service experience, systematic

analyses, and technological advancements.

In the first step of the classification procedure, ABS technical surveyors reviewed the design plans of the Ocean Ranger and certified that they adhered to the rules. Next, ABS field surveyors attended construction of the Ocean Ranger from keel laying to delivery at the yard of the builder to assure that the approved plans were met, good workmanship practices were followed, and the ABS rules were adhered to in all other respects. ABS surveyors also attended the manufacturing plants that fabricated all major components and materials used and required by the ABS rules in the construction of the Ocean Ranger to be sure that they too met requirements as set forth in the ABS rules.

Upon completion of the Ocean Ranger, ABS surveyors found that this mobile offshore drilling unit did, in fact, meet the rules in all respects and recommended it for classification to the ABS Classifi-

cation Committee.

The ABS Classification Committee confirmed the surveyors' recommendation and granted classification to the Ocean Ranger thus indicating that it was structurally and mechanically fit for its intended service.

A check of the records indicates that the Ocean Ranger was approved for the following operating conditions: (1) A draft of 55-80 feet; (2) wave height of 110 feet; (3) wave period of 15 seconds; (4) wind velocity of 100 knots; (5) current of 3 knots; (6) a live deckload of 4,000 L.T.; and (7) an ambient temperature of -30° C, -23° F.

A second review was conducted considering the same conditions

with a 65-foot wave height and a 9-second wave period.

After construction to determine that the Ocean Ranger's hull and machinery were being maintained in satisfactory condition, it was subject to a program of periodic surveys, as specified in the ABS rules. Periodic surveys are a condition of classification for ABS-classed vessels and it is incumbent upon owners of those vessels to present them on a periodic basis for the required surveys.

The written presentation includes the pertinent part of the rules for building and classing mobile offshore drilling units for surveys after construction. ABS records indicate that all required surveys after construction had been carried out on time and all had been

found satisfactory.

In accordance with its rules requirements, ABS conducted various surveys of the Ocean Ranger and issued various certificates including the load line certificate in compliance with the International Convention for Load Lines and the safety construction certificate as established by the International Convention for the Safety of Life at Sea. Authority to perform surveys and issue certificates for load line and SOLAS conventions was granted to ABS by the representative of the U.S. Government.

ABS has at present 339 mobile offshore drilling units in class and 255 building to class worldwide. ABS will follow closely ensuing events with a view to studying the cause of the Ocean Ranger tragedy. It is also prepared to assist with the National Transportation Safety Board investigation as well as any other United States

or Canadian investigations that may be convened.

I thank you, Mr. Chairman.

# [Prepared statement follows:]

## STATEMENT OF AMERICAN BUREAU OF SHIPPING

The American Bureau of Shipping (ABS) establishes and administers standards, known as Rules, for the plan review, construction, and periodic survey of merchant ships and other marine structures (herein collectively referred to as "vessels"). Classification certifies adherence to these Rules, thus representing that a vessel possesses the structural and mechanical integrity required for its intended service. A classed vessel is one that provides for the safety of lives and cargoes that the vessel may carry, as well as for the environment in which it may operate. Enclosed is a publication entitled "Classification, Promoting the Security of Life and Property on the Seas" which explains in detail the functions of the process of classification.

ABS has long been involved with marine safety by fulfilling its chartered purpose of promoting the security of life and property at sea. In furtherance of its mission, ABS has been privileged to act for and on behalf of the Coast Guard and many foreign governments with respect to assuring both the structural and mechanical in-

tegrity of U.S. and foreign vessels which elect to have ABS classification.

The American Bureau of Shipping is a not-for-profit organization. It has no capital stock, no part of its income is distributed among its Members, and no ABS Member or Committee Member, who participates in the work of the ABS technical committees, special committees, or panels, receives compensation for his service. The American Bureau of Shipping is entirely supported by the fees charged to shipowners who request classification services. Any excess of income over expenses in any one year is used to extend and improve services and for research and development.

#### **OPERATIONS**

As to its operations, the ABS personnel who perform the numerous daily activities related to the classification of vessels are collectively called surveyors. They are actually naval architects, marine engineers, metallurgists, computer specialists, individuals with experience as seagoing engineers, and others with technical skills applicable to ship classification. Surveyors are generally known as either technical surveyors or field surveyors, denpending upon their duties. These duties can best be described through an explanation of the classification procedure.

#### CLASSIFICATION PROCEDURE

Classification is a four-step procedure involving technical plan review, surveys during construction, approval by Classification Committee and subsequent periodic surveys.

When an owner first requests that his vessel be classed with ABS, the plans are submitted to the ABS technical staff for a systematic and detailed review by its Technical Surveyors to establish compliance with the published ABS Rules. To conduct such studies, ABS employs naval architects and marine engineers who scrutinize the vessel's hull and machinery plans to verify that the details conform in all respects to the requirements set forth in the "Rules".

After a vessel's plans have been approved by the ABS technical staff, the next phase of classification begins—the construction of the vessel under the vigilance of the ABS Field Surveyor. Field Surveyors conduct continuous surveys of a vessel from keel laying to delivery to assure adherence to the "Rules" and to certify that the approved plans are followed. During the construction of a vessel built to ABS classification, Field Surveyors witness the tests of various materials for hull and machinery items at the place of manufacture or fabrication; survey the building of

the hull, machinery, boilers and vital auxiliaries; and attend sea trials. Having conducted a continuous survey on the owner's vessel from the time of keel laying until completion, the Field Surveyor then attends the sea trials to assure that the vessel is in good working order and capable of performing in accordance with the ABS requirements. Upon successful completion of sea trials the vessel's "credentials" are presented to the ABS Classification Committee. This committee (comprised of a group of experts of the maritime industry, members of the U.S. Coast Guard and ABS Officers who use their collective experience and recommendations from the ABS staff) performs a final assessment of a vessel presented for classification. If they are satisfied that the vessel complies with the "Rules" in all respects, the Committee grants the vessel official ABS classification saying, in essence, that the vessel adheres to all the plan and construction requirements of the American Bureau of Shipping and, therefore, is fit to perform its intended service with

security to life and property at sea.

To insure that the vessel is maintained in quality condition, ABS conducts periodic surveys at designated times throughout the life of the vessel. These periodic surveys are a necessary condition for retaining classification status. During a periodic survey various prescribed machinery parts and structural sections are examined. If it is found that the requirements of the ABS "Rules" are not met, the Field Surveyor will require appropriate repairs that are necessary in order to satisfy those requirements. A vessel that continues to be in satisfactory condition and good working order within the meaning of the Rules meets the requirements of the periodic survey.

#### RULES -

The "Rules for Building and Classing Steel Vessels" (Steel Rules"), the basic ABS standard, describes in detail modern engineering practices for the design and construction of commercial vessels. The Rules are established from principles of naval architecture, marine engineering and other engineering disciplines that have proven satisfactory by service experience and systematic analysis. Each edition is an embodiment of service experience and technological advancement developed since

the first edition was issued in 1890.

The "Steel Rules" are updated annually by a committee structure. American Bureau of Shipping committees are composed of individuals from industry and government, eminent in their marine fields, who serve without compensation. These committees permit ABS to maintain close contract with interests in various geographical regions and with various technological and scientific disciplines. The committee arrangement has the distinct advantage of allowing the Government and all segments of the industry to participate in developing the various Rules, thereby

making them authoritative, impartial, and thus widely recognized and respected.

Besides the "Steel Rules" ABS publishes other specialized volumes such as Rules for Building and Classing "Offshore Mobile Drilling Units", "Aluminum Vessels", "Vessels Under 200 Feet in Length", Great Lakes Bulk Carriers" and "Single Point Mosting" Moorings", to name just a few. In total ABS presently publishes thirteen Rules and

A proposal for new Rules or a change in existing Rules may originate with a Committee, a Panel, the ABS Staff, or other individuals in the maritime field. A proposal made by an individual, by a Special Committee, or by an Overseas Technical Committee is directed to the ABS Staff where a formal proposal is drafted and submitted to either the Committee on Naval Architecture, if it concerns hull, or the Committee on Engineering, if it concerns machinery. When the proposal is approved it then proceeds to The Technical Committee at its annual meeting. After acceptance it is incorporated into the Rules. Interaction between the Committees and ABS Staff affords each proposal a critical and fair hearing.

# THE RECORD

In addition to establishing and administering Rules, another function of ABS, as stated in the By-Laws of its constitution, has been to keep a "faithful and accurate Classification and Registry of mercantile shipping". In fulfillment of this obligation the first edition of this registry was published in 1969 and was called the "Record of American and Foreign Shipping," a title which for convenience sake has since been shortened to the "Record." Through the years the "Record" has growth both in importance and size and today the 1982 "Record" gives the pertinent characteristics and information of some 55,000 merchant vessels, virtually all of the merchant vessels in the free world sels in the free world.

#### MANAGEMENT

Understanding the ABS committee structure is necessary to an understanding of the functions of the American Bureau of Shipping as a self-regulatory society representing the maritime community. The maritime community, through the 33 committees of the American Bureau of Shipping, decides based upon experience and technical progress on the appropriateness and effectiveness of the various Rules. In this way, industry experience and expertise are translated into design, construction, and survey standards through the agency of ABS. Moreover, the fact that the American Bureau of Shipping is an impartial representative of the maritime community is underscored by the fact that management responsibilities are vested in a munity is underscored by the fact that management responsibilities are vested in a Board of Managers, 60 in number, elected from some 475 Members of ABS. The

Members, and thus the Board of Managers are composed of marine underwriters, shipowners, shipbuilders, government representatives, naval architects, marine engineers and other persons who are prominent in their marine field of endeavor. Of the Board of Managers one Member is designated by the U.S. Secretary of Commerce and one by the Commandant of the United States Coast Guard. These members are traditionally the Undersecretary of Commerce for Maritime Affairs and the Commandant himself.

#### STATISTICS

As of 1 January 1982, there were 15,809 vessels totalling 194,403,000 deadweight tons under ABS classification. In addition, at that time, there were 2,282 vessels totalling 18,685,000 deadweight tons contracted to be built or being built to ABS clas-

#### STAFF

ABS employs 274 exclusive technical surveyors and 609 exclusive field surveyors who are located in 139 exclusive offices around the world. In addition, ABS has nonexclusive surveyors. ABS is represented in a total of 90 countries.

In the United States, ABS has 189 field surveyors and 175 technical surveyors stationed in 43 locations. Futhermore, at the headquarters office in New York, in addition to 180 exclusive technical and field surveyors, there are 48 ocean engineering and research engineers and 39 specialists in computer science.

#### GOVERNMENT RECOGNITION

ABS is recognized by 84 governments to issue Loan Line certificates and by 44 governments to issue either wholly or partially Safety of Life at Sea (SOLAS) certificates. ABS is also authorized by 46 governments to issue National Tonnage certificates on their behalf as well as to issue tonnage certificates for the Suez and Panama Canals.

#### INTERRELATIONSHIP WITH THE COAST GUARD

Marine safety requires that vessels be structurally and mechanically sound, adequately manned and equipped and operated in a proper manner. By providing the services of plan review, factory inspection, construction surveys and surveys of vessel maintenance, ABS assures the structural and mechanical soundness of ABSclassed vessels. This assurance as to the soundness of a marine vessel built to and maintained in ABS classification has led over the years to a clear interrelationship and partial interdependence between ABS and the United States Coast Guard, which allows the Coast Guard to concentrate its attention and resources on the manning, equipping and operating functions of marine safety.

#### U.S. GOVERNMENT RECOGNITION

The United States Coast Guard and ABS also cooperate in the approval of machinery and hull structural plans. Regulations contained in Title 46 C.F.R. 31.10(c) (tank vessels), 71.65-1(b) (passenger vessels), 91.55-1(b) (cargo vessels), 107.305(c) (mubile offshore drilling units) and 189.55-1(b) (oceanographic vessels) provide for the Coast Guard to accept as satisfactory the hull structural plans for U.S. flag vessels classed by ABS except when the law or Coast Guard regulations contain requirements which are not covered by ABS requirements.

To reduce duplication of effort, ABS and the Coast Guard reached an agreement in 1972 that eliminated the redundant review of hull structural plans reviewed and approved by ABS. Subsequent to the agreement, the plan submitter in effect worked through ABS to obtain approval for hull plans and the Coast Guard recognized and granted its approval based upon that of ABS.

In June 1981 ABS signed a Memorandum of Understanding with the U.S. Coast

Guard providing for Coast Guard acceptance of ABS plan review and inspection of selected items on new vessel construction that are both classed by ABS and certified by the Coast Guard. The items covered include the hull structure of ships, mobile offshore drilling units and barges, as well as crude oil washing systems and certain piping systems.

The Memorandum, which became effective August 1st, 1981, was considered an interim document, and both ABS and the Coast Guard envisioned other areas where

cooperative efforts could be extended. This in fact has been the case.

The second stage of this cooperative effort, which will broaden the areas and items covered by the initial Memorandum, is now in its final form. It is contingent upon the Coast Guard's publication of revised electrical engineering regulations, a revision which is considered necessary to bring into conformance the electrical regu-

lations of the Coast Guard and ABS.

In the meantime, as part of this second stage another Memorandum of Understanding, this one concerning tonnage, was signed by ABS and the Coast Guard in February. This provides for Coast Guard acceptance of ABS admeasurement and tonnage certification of all United States flag vessels. Also included are special tonnage certificates for passenger vessels and tonnage certificates for the Suez and Panama Canals. This Memorandum, effective 1 March 1982, applies to all new and existing vessels of ABS classification, as well as to all vessels to which the optional simplified admeasurement method pertains. Effective 1 June 1982, it will apply to other new and existing unclassed vessels as well.

In addition, it is significant to note that as part of the above mentioned agreement, the Coast Guard and ABS have stated as a common long term objective that they will review: areas for future cooperation, types of liaison, methods to communicate difficulties which may arise, and provisions for future amendments to the Memorandum. In this connection, the American Bureau of Shipping is ready to perform such other functions within its capabilities as the Coast Guard may choose to delegate while still maintaining its overall authority. However, because of the nature of its charter and organization, ABS cannot extend this cooperation into areas of activity which will involve it in matters pertaining to investigations, manning of vessels, or similar non-technical activities of the Coast Guard.

ABS has had a long-standing and good working relationship with the United States Coast Guard. The Commandant of the U.S.C.G. serves as a member of the ABS Board of Managers. In addition, a number of people from the Coast Guard participate in the ABS Technical Committees which have the responsibility for develop-

ing and modifying the various ABS Rules.

Because of the unique status and attributes of ABS, the U.S. Congress directed all departments, boards, bureaus, and commissions of the United States Government to recognize the Bureau as their agency as long as the organization of the Bureau remains unchanged. Section 25 of the Merchant Marine Act of 1920 (46 U.S.C. 881) provides:

"That for the classification of vessels owned by the United States, and for such other purposes in connection therewith as are the proper functions of a classification Bureau, all departments, boards, bureaus, and commissions of the Government are hereby directed to recognize the American Bureau of Shipping as their agency so long as the American Bureau of Shipping continues to be maintained as an orga-

nization which has no capital stock and pays no dividends."

Following upon this repositing of confidence in American Bureau of Shipping, the U.S. Congress in the Merchant Marine Act of 1936 made the obtaining of a government-insured ship mortgage contingent upon compliance with ABS Rules. Recognizing the close relationship with the United States Coast Guard, Congress went on to require such compliance in conjuction with Coast Guard requirements:

Obligations guaranteed under this title—
"(6) shall provide \* \* \* that if the vessel used as security for the guarantee of the Secretary of Commerce is a delivered vessel, the vessel shall be in class A-1, American Bureau of Shipping, or shall meet such other standards as may be acceptable to the Secretary of Commerce, with all required certificates, including but not limited to, marine inspection certificates of the United States Coast Guard, with all outstanding requirements and recommendations necessary for retention of class accomplished." (46 U.S.C. 1274(b)(6).

Particularly with respect to construction of tankers and other bulk carriers of combustible materials, oil or other hazardous polluting substances, the American Bureau of Shipping has been designated for approving plans and issuing certificates of class (46 U.S.C. 391a(5)) Such certificates of class must conform with the rules and regulations adopted with respect to the design and construction, alteration, repair

and maintenance of such vessels. 46 U.S.C. 391a(3) provides:

"The Secretary of the department in which the Coast Guard is operating (hereafter referred to in this Section as the 'Secretary') shall establish for (tankers) such additional rules and regulations as may be necessary with respect to the design and construction, alteration, repair and maintenance of such vessels \* \* \*. In establishing such rules and regulations the Secretary may \* \* \* adopt rules of the American Bureau of Shipping or similar American classification society."

With respect to load line regulations, Congress has promulgated a clear directive:

"The Secretary of Commerce (Commandant of the Coast Guard or Commissioner of Customs) shall appoint the American Bureau of Shipping, or such other American corporation or association for the survey or registry of shipping as may be selected by him, to determine whether the position and manner of marking on such vessels the load line or lines so established are in accordance with the provisions of (Section 88-88i)." (46 U.S.C. 88b).

In connection with certain aspects of the International Convention for the Safety of Life at Sea, 1960, ABS has been recognized as an agent of the Government, for

example, with respect to mobile offshore drilling units:

"The American Bureau of Shipping or the Coast Guard may issue a self-propelled unit of at least 500 gross tons that engages on international voyages a Safety Construction Certificate if the unit meets the requirements (in Regulation 12(a)(ii) Chapter I of SOLAS 1960)." (46 C.F.R. 107.409).

ABS has been recognized in the Code of Federal Regulations as the agent of the Government charged with the responsibility of setting standards for construction and testing of marine material, machinery and equipment. 46 C.F.R. Section 188.35

states that:

"(a) Where in this subchapter an item or method of construction, or testing is required to meet the standards established by the American Bureau of Shipping, the current standards in effect at the time of construction of the vessel, or otherwise as applicable, should be used.

This definition of the standards established by ABS covers a substantial amount of Part 189 of 46 C.F.R. Inspection and Certification. For example, 46 C.F.R. 189.15-1

provides:

"(a) In the inspection of hulls, boilers, and machinery of vessels, the standards established by the American Bureau of Shipping \* \* \* respecting material and construction of hulls, and the certificate of classification referring thereto . . shall be adopted as standards by the inspectors."

Subpart 189.55-1 provides:

"(b) In the following list of required plans . . . the items which must be approved by the American Bureau of Shipping for vessels classed by that organization are indicated by an asterisk. When prints bearing record of such approval by the American Bureau of Shipping are forwarded to the Coast Guard they will in general be accepted as satisfactory."

In practice, approval by ABS usually results in approval by the Coast Guard. Sub-

part 189.60-5 provides:

"(a) All vessels on an international voyage are required to have a Cargo Ship Safety Construction Certificate. This certificate shall be issued by the United States—Coast Guard or the American Bureau of Shipping."

The ABS structural standards for offshore mobile drilling units have been recog-

nized in the Code of Federal Regulations:

"Each unit must meet the structural standards of the American Bureau of Shipping's 'Rules for Building and Classing Offshore Mobile Drilling Units, 1978' (or standards of another society approved by the Commandant of the Coast Guard)." (46 C.F.R. 108.113).

Classification
Promoting the security of life and property on the seas.

#### Jaselfication

Ship classification is a truly unique service for it has no counterpart in any other field of industry or commerce. Though integral to the functioning of the marine industry by affording a means of self regulation, the nature of the support services produced by ship classification societies are such that the societies ordinarily occupy a background position within the industry. Because of this, the meaning and extent of classification are not always clearly understood.

Briefly stated, ship classification societies establish and administer standards, known as Rules, for the design, construction, and periodic survey of merchant ships and other marine structures. Classification certifies adherence to these Rules, thus representing that a vessel possesses the structural and mechanical fitness required for its intended service. A classed vessel is one that provides for the safety of lives and cargoes the vessel may carry as well as the environment in which it may operate.

Representation of fitness may be considered as the core of classification and it follows that Rules provide the foundation to which this core is auchored. An understanding of classification and classification societies, then, is best approached through an appreciation of these Rules.

Classification society Rules for the design, construction, and periodic survey of vessels have two fundamental and distinct aspects. One is the development process by which Rules are established and updated and the other is the application procedure by which Rules are administered.

Rules are derived from principles of naval architecture, marine engineering, and other allied ingineering and scientific disciplines that have proven satisfactory by savice experience and systematic analysis. ABS develops and updates its Rules through a committee structure comprising seventeen technical committees, two panels, and fifteen overseas technical committees. Technical committees and panels permit ABS to maintain close contact with various technological and scientific disciplines related to the design, construction, and maintenance of marine vessels; overseas committees permit ABS to maintain close contact with marine activities and advancements in various geographical regions around the world. Moreover, both the technical and overseas committees aid in generating operational feedback which is vital to any ongoing analytical system:

Each committee and panel is composed of a number of individuals enjoyed in their marine or associated field of endeavor such as naval architects, marine engineers, under writers, shipowners, shipbuilders, material manufacturers, and machinery fabricators. In this way each committee represents a cross section of views without bias toward any parficular interest. All members of the ABS committees serve without compensation which further safeguards the impartiality of committee action.

Viewpoint: Shigowner

A proposal for a change in an existing volume of Rules or the publication of a new volume of Rules usually originates with a committee, a panel, or the ABS staff; but a proposal may also originate from an individual in the maritime field. Once a proposal is made, a formal draft is prepared by the ABS staff and submitted for review to the appropriate committee or panel such as the Materials Committee, Welding Committee, Electrical Engineering Committee or Offshore Installations Committee, to name but a few. If the proposal is passed by that particular committee it is then submitted to the Committee on Naval Architecture (should the proposal pertain to the vessel's hull) or the Committee on Engineering (should the proposal pertain to the vessel's machinery).

Upon acceptance by either of these two Committees, it then proceeds to The Technical Committee which is the ultimate arbiter of each and every proposals acceptability. Upon acceptance by The Technical Committee a proposal is then incorporated into the Rules. It is this Committee, The Technical Committee, that has the final responsibility for the promulgation of all ABS Rules.

Many of the ABS committees meet annually and may hold additional sessions besides if deemed necessary. Through the ABS Rule development mechanism all proposed Rule changes are subject to expert appraisal and are afforded a fair and critical hearing.

contracts to build a ship that the ship will be built to meet certain standards7 The classification societies provide that assurance and protect the interest of the owner from the very inception of the idea of building a ship. This assurance gene ates security, centidence, and acceptance by a involved in the shipping trade. The classification society provides the common denominator for ship to exist in the international shipping market. After the ship has been built, it is under periodical and special survey by the classi-fication society to maintain clas during a ship's lifetime. The s vices that any classification ciety provides to the shipping business community are involuable, essential, and irreplace oble.

George P. Livanos President Seres Shipping Incorporated Viewpoint: Shipbuilder

Try to imagine i at the maritimo industry uld be without ship classification societies. Who would re view a new ship design and designate it lit for intended service Who would at tend construction to ascertain a ship was built to raved de. sign? Who would perform periodic surveys to varify a vessel is being property maintained? The classification sociaties are best able to perform these critical tasks because they draw on the cumulative exertise and expe rience of the world maritime industry. The cooperation of the maritime in dustry is freely given because of the professional-ism of the societies and their vital role the safety of life and property on the seas.

John T. Gilbride Chairman and Chief Executive Officer Todd Shipyard Corporation Throughout the Rule development process the ABS staff lends its advice as needed to the work of the committees. This advice is rooted in the staff's expertise acquired from daily involvement with hull and machinery review, as well as frequent contact with industry members, associations, and institutions of higher learning. The ABS staff also interacts with the committees in providing valuable input relative to service history and research.

In regard to service history, the society Rules may be considered in part a compendium of experience factors for they represent principles derived from the satisfactory service experience of many thousands of vessels classed by ABS through the years. Through comprehensive reports submitted by surveyors during a vessel's construction and throughout its life ABS maintains a detailed history of every vessel that it has classed. This is an ongoing and extensive process as new vessels are constantly being added to the ABS classed fleet and those already in the fleet add to their service time. (For instance, in 1980 ABS classed 818 new vessels of 5,188,000 deadweight tons or 3,323,000 gross tons and as of 1 January 1981 there were 15,837 vessels of 194,290,000 deadweight tons or 109,132,000 gross tons in ABS classification.)

Thus, the ABS staff, aided by computer, performs the steady task of evaluating a vast reservoir of continually updated information. They do so to search for new principles that may be empirically derived from cumulative vessel experiences and which would allow the procepts embodied in the Rules to be advanced. When ascertained, such findings would be presented to the ABS committees for consideration. Conversely, the ABS staff may also evaluate certain Rule changes proposed by a committee to confirm (or refute) the validity of a proposal in light of historical experience vis-a-vis the ABS information bank.

Viewpoint: Ship Operator

On the matter of research, ABS has sponsored or co-sponsored numerous research programs for developing data on the forces imposed upon vessels by the sea and their resulting behavioral responses.

Analyses of this data by ABS, again nided by computer, has proven of great value in verifying certain of the proposed Rule requirements, as well as having provided evidence that certain existing requirements could be properly modified. Research, too, is an ongoing function in which the ABS staff is deeply involved and to which ABS devotes considerable resources. Vessel instrumentation, model testing, material and welding research, computer analysis of structure and machinery, and sea state measurements are some of the research activities in which ABS is involved for the purpose of improving and extending the Rules. Those findings from such activities which may have a bearing on the Rules are presented to the appropriate ABS committee for consideration.

Teis from the ABS committee system that the ABS Rules gain an effectiveness that could not be achieved in any other way, namely, the Rules are:

Authoritative; the Rules are formulated by experts from the maritime industry supplemented by the extensive resources and experienced staff of ABS.

Impartial; the Rules are formulated by a broad-based, cross section of individuals from all segments of the maritime industry who provide their services without compensation.

Current; the ABS Rules are based upon the latest proven technological advancements and empirical principles known to the international marine industry.

That the ABS Rules are impartial, authoritative, and current is of particular significance when the Rules are considered in terms of their application to the classification procedures.

A shipowner knows that when his vessel was constructed occording to the Rules of an internationally accepted classifi-cation society, his investment was protected by the most up-to-date technical knowledge and super-vis<del>io</del>n throughout its building. He further know that when class is and his staff have the benefit of the latest, the safest. and the most ef ficient methodolnance and repair. And, finally, he knows that maintaining class in-sures his investment and that when the time comes that he may want to sell or replace his vessel, one of the first requests made of him by the prospective purchaser will be for his permission to look at his classification : ciety's <u>reco</u>rd. There is no doubt that the relatively low percent-age of marine cospolities at tributed to errors of structure and machinery is largely owed to the international classification system.

Thomas J Smith Petied President and Chief Executive Officer Forrell Lines

#### Technical Committees

The Technical Committee Committee on Naval Architecture Committee on Engineering Committee on Nuclear Applications **Great Lakes Technical Committee** Western Rivers Technical Committee Belgian Technic d Committee Brazilian Technical Committee British Technical Committee French Technics I Committee German Technic il Committee Greek Technical Committee Hong Kong Teel meal Committee Indian Technica: Committee Italian Technica Committee Japanese Techni al Committee Netherlands Tee inical Committee Republic of China Technical Committee Scandinavian Technical Committee Southeast Asia 'ibehmeal Committee

Spanish Technical Committee

Special Committee on Cargo Containers

Special Committee on Electrical Engineering Special Committee on Materials

Special Committee on Ocean Thermal Energy Conversions

Special Committee on Offshore Installations

Special Committee on Offshore Mobile Drilling Units

Special Committee on Reinforced Plastic Vessels

Special Committee on Ship Operations

Special Committee on Single Point Moorings

Special Committee on Underwater Systems and Vehicles

Special Committee on Welding

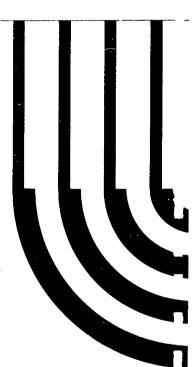
Panel on Gears

Panel on Propellers

The Establishment of Rules

Overseas Technical Committees, Technical Committees, Special Committees, and

Committee on Naval Architecture Committee on Engineering



#### Published .--

#### Rules for Building and Classing:

Steel Vessels — English, French, German, Greek Italian, Japanese, Portuguese, Spainsh Steel Vessels for Service on Rivers and Intracastal Waterways — English, Spainsh Steel Vessels Under 61 Meters (200 Feet) in Length — English, Spainsh Altumium Vessels — Mobile Offshore Drilling Units — Underwater Systems and Vehicles Single Point Moorings — Bulk Carriers for Service on the Great Lakes Steel Barges for Offshore Service — Steel Floating Drydocks — Reinforced Plastic Vessels

#### Rules for:

Certification of Cargo Containers Nondestructive Inspection of Hull Welds

#### Guides for:

Burung Crade Oil and Slops in Main and Auxiliary Boilers Construction of Shipboard Elevators Repair and Cladding of Shafts Classification of Nuclear Ships Underwater Inspection in Lieu of Drydocking Survey Offshore Installations Reactivation of Land-Up Ships Ships Burung Coal Industrial Systems Offshore Racing Yachts

#### Guidance Manual:

#### Requirements for:

Certification of Self-Unloading Cargo Gear on Great Lakes Vessels Certification of the Construction and Survey of Cargo Gear on Merchant Vessels Approved Welding Electrodes, Wire-Plux and Wire-Gas Combinations with Appendix on Rules for Approval



The Publication of Rules

The Technical Committee

## Administration of Rules

The formal classification procedure begins when an official request for the classification of a ship or marine structure is voluntarily submitted to ABS. This usually results from an owner specifying a desire for ABS classification to the shipyard whereupon the shipyard contracts for classification services with ABS.

The vessel design is then submitted to ABS for verification that the plans conform to accepted standards of good practice for vessel design embodied in the "ABS Rules for Building and Classing Steel Vessels," or other of the various ABS Rules. So, in reviewing a given set of design plans, ABS is comparing them with a compendium of experience factors and proven scientific principles. It this way, ABS is able to determine whether the design is adequate in its structural and mechanical concept and, therefore, acceptable to be translated into an actual vessel.

To conduct the plan review function, the classification society employs technical staff surveyors trained in the skills of naval architecture, marine engineering, and other associated disciplines. These specialists scrutinize the vessel's design to confirm that the details comply with the standards set forth in the published Rules. Their review may also include sophisticated analytical procedures employing one of the many ABS computer programs. If the design is found to be not in compliance with the Rules, ABS amends the plans or notifies the owner or designer of the departures from the Rule requirements. During the entire review process ABS is available for consultations with the owner and designer.

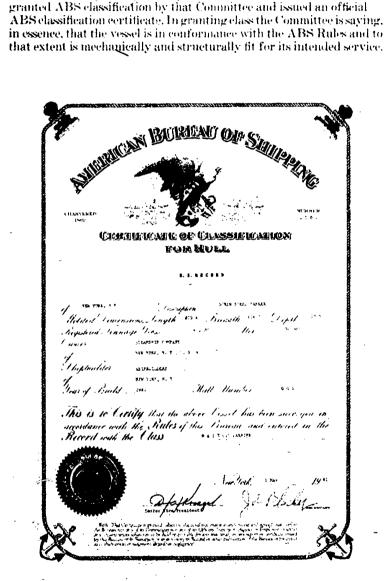
After a design has been reviewed by ABS technical surveyors and found to be in conformance with the Rules, ABS field surveyors, who are experienced in the construction of hulls and fabrication of machinery and components, "live with the vessel" at the shippard from keel laying to delivery. In so doing, they survey construction to verify that the plans are followed, workmanship is of the best quality, and the Rules are adhered to in all respects. Field surveyors also witness testing of material, machinery, and components at manufacturers' plants and fabricators' shops to determine that they also comply with the Rules. During the encire time of construction ABS maintains an ongoing dialogue with the owner and shippard to make sure the Rules are understood and adhered to and also to assist in resolving any differences that may arise.

Viewpoint: Kull Underwriter

The classification society carries and maintaining standards of quality for ves sels. Putting it quite succinctly, the American Hull Insurance Syndicate would not consider insuring a vessel which was not in class with ABS or one of the other major classifica-tion societies. Determining that a vessel is in proper status with her classification society is a routine, yet es-sential feature of our insurance renewal process. When damage occurs, the classification society will set out what needs to be done to restore her to class. We rely on the classification society

Alien E. Schumacher Chairman American Hurl Institutice Syndicate

for this purpose.



When completed, a vessel undergoes sea trials and an ABS field sur-

requirements as specified in the Rules. In order for a vessel to be formally classed, a report must be presented to the ABS Classification

veyor attends the trials to verify that the vessel performs according to

Committee. This Committee, composed of prominent individuals from

the maritime industry who serve without compensation, meets twice a

month to perform a final review of the vessel's "credentials." A vessel

found to be acceptable in all respects according to the Rules is then

#### Periodic Surveys

Though a new vessel may be granted ABS classification and thereby judged fit for its intended service, such status is not automatically retained throughout its service life. As the rigors of sea can be wearing on a vessel's hull and machinery with the passing of time, the society must have some method for determining whether a vessel is being maintained in a condition worthy of retaining classification status. This is accomplished through periodic surveys.

As specified in the Rules the owner must present his vessel to ABS on a periodic basis for the survey of hull areas and machinery items in accordance with Rule requirements.

Another responsibility of the owner in connection with classification status involves the damage survey. If there is any reason to believe that an ABS classed vessel has sustained damage that may affect classification status it is incumbent upon the owner to so inform the society. ABS surveyors would then survey the vessel to determine what repairs, if any, would be necessary to retain classification.

Concerning both periodic and damage surveys, if the requirements are not met the owner is so advised, affording an opportunity for corrective measures to be taken. Failure to do so results in suspension or cancellation of classification.

Statutory Services Because the ABS Rules are administered in an unbiased, uncompromised, and expert manner by exclusive surveyors around the world (ABS is represented in 90 countries and has 132 exclusive offices and 47 exclusive sub-offices staffed by 1301 exclusive employees) and because the ABS Rules are impărtial, authoritative, and current, ABS classification services are internationally recognized and respected. In fact, many governmental administrations have authorized ABS to act on their behalf to conduct surveys and to issue certificates in accordance with various international and national maritime conventions and codes. In this regard as of 1 January 1981:

82 governments have authorized ABS to act on their behalf to

apply the International Convention of Load Lines - 1966;

51 governments have authorized ABS to act on their hebalf to apply the International Convention for the Safety of Life at Sea - 1960 (of which 29 have extended their authorization to the 1974 Convention :

 $46\,\mathrm{governments}$  have authorized ABS to issue National Tonnage Certificates on their behalf.

That a major classification society such as ABS is eminently qualified to perform these statutory services is not owed simply to the fact that such statutory work is in itself allied to classification. A society such as ABS possesses a global network of exclusive surveyors and the extensive resources in manpower and technology to conduct the surveys, maintain the records, and conduct the technical reviews necessary to fulfill the various convention requirements. Any one governmental administration would be hard pressed if it were to rely on its internal devices to provide similar services. In its work with statutory functions, just as in its work with classification, the society provides a vital service to the industry.

Viewpoint: Cargo insurer

Harine under writers need ship classification because underwriters do not possess the technical knowledge needed to approve vessel de-sign, stability, machinery, cargo spaces and cargo handling equip-ment. Underwriters roly to a great extent on appropriate classification that the vessel is trade (ocean, rivers, lakes, etc.)
and the goods
carried. Cargo
underwriters in the pricing of their insurance make certain äzsumptions re-garding the ves-sal, which include that the vesse! is designed for its intended use and maintained in an occeptable hysical condition, bosed on its classification, and that classification societies require each vessel to live up to their reguirements not only at the time of construction but also at each of the annual. semi-annual, and special surveys.

John J. Mackowski President The Atlantic Companies The responsibility of the classification society is to assure that merchant ships and marine structures presented to it comply with Rules that the society has established for design, construction, and periodic survey. As mentioned earlier, classification is a representation by the society as to the structural and mechanical fitness of a vessel for intended service in accordance with its Rules.

Contrary to the misconception by some, a classification society does not judge the economic viability of a vessel, neither is it in a position to judge whether a vessel is ultimately employed according to the stated intended service by which it was classed. Neither can the classification society assume responsibility for managerial decisions of an owner or operator concerning crewing practices or operation of a classed vessel. It can only record, report, and recommend in accordance with what is seen at the time of a vessel's construction and subsequent surveys. Through its classification survey procedure it is the intent of the society to prevent a vessel from falling to a substandard condition. If a vessel should be found to be in such a state and the recommendations of ABS are not followed to the effect the appropriate corrections in keeping with the requirements of the Rules, then ABS will terminate the vessel's classification.

It has been authoritatively established that in excess of eighty-five percent of all marine casualties have been caused by human error and a structurally sound and mechanically fit vessel cannot of itself reduce this figure. ABS is constantly reviewing its Rules and procedures in a continuing effort to reduce the remaining fraction of marine casualties resulting from structural and mechanical failures.

It may be well to bear in mind that in dealing with the sea, its impredictable and sometimes perilous nature presents many unknowns and, therefore, requires that certain risks must be accepted. But by building to the classification standards of ABS an owner is making sure that his merchant ship or other marine structure is mechanically and structurally fit as is reasonably possible by virtue of having the vessel designed, built, and maintained according to internationally recognized Rules. In so doing the owner is providing for the safety of lives and cargoes the vessel may carry as well as the environment in which it may operate.

The American Bureau of Shipping has no capital stock and pays no dividends. It is a non-profit, non-governmental ship classification society. The income of ABS is derived from fees for the classification and survey of marine vessels. All funds are used solely for the performance of its services, and any surplus of receipts in any one year is used for the extension and improvement of such service.

Management responsibilities are vested in the Board of Managers, 60 in number, chosen from the 453 Members of ABS. The Members of this society are shipowners, shipbuilders, naval architects, marine underwriters, government representatives, and other persons eminent in their marine field of endeavor.

Because of the way it is organized and operates, ABS is able to maintain an impartial and uncompromised position in performing classification around the world, a position which is in the best interest of and fully endorsed by the marine industry. In this way ABS is most effectively able to act as a self-regulatory agency to the industry in promoting the safety of life and property at sea. ABS is indeed proud of its reputation as a class society and the vessels in its classification fleet. Nevertheless, it is dedicated to a relentless search for ways to further minimize risks and improve safety through its classification services.

Viewpoint: Admiralty Lawyer

All legal documents refer to the classification status of vessels as the basis for financing and sale, construction and condition surveys of vestermining the er other marine intended service admirelty lawyers could not operate efficiently in most phases of admiraity law. The classification sociaties render the most important function in setting known standards in the marine architecture and engi-neering service thus assuring the safety of life and seas.

William A. Sheehan Senior Paitner Kirlin, Campbell & Keating American Bureau of Shipping 65 Broadway New York, New York 10006 U.S.A.

William N. Johnston, Chairman and President Lawrence J. Bates, Executive Vice President Dale A. Kreeger, Senior Vice President Kenneth E. Sheehan, Vice President and Counsel Stanley G. Stiansen, Vice President William M. Hannan, Vice President Robert E. Vollack, Vice President Louis V. Minett, Vice President John R. Blackeby, Secretary Thomas Zuppello, Treasurer

Design, Noneman and Nonemu

7/81~ -5M Second printing Printed in USA Mr. Jones. Thank you, Mr\_Borum. Our next witness is Rear Adm. Clyde T. Lusk.

# STATEMENT OF REAR ADM. CLYDE T. LUSK, JR., U.S. COAST GUARD

Admiral Lusk. Good afternoon, Mr. Chairman and members of the committee.

I am Rear Adm. Clyde T. Lusk, Jr., Chief of the Office of Mer-

chant Marine Safety of the U.S. Coast Guard.

With me are Capt. John DeCarteret on my immediate left, Chief of the Merchant Vessel Inspection Division of the Office of Merchant Marine Safety. To his left is Capt. Richard Brown, Chief of the Merchant Marine Technical Division of the U.S. Coast Guard.

We appreciate the opportunity to speak before this committee concerning the drilling rig, Ocean Ranger. I will keep my opening remarks very brief, Mr. Chairman, essentially limiting them to a summation of the U.S. Coast Guard involvement before and after

the tragic loss of the Ocean Ranger and crew.

A detailed statement, summarizing the Coast Guard's commercial vessel safety program was prepared and submitted for the Coast Guard Oversight Hearings held by Chairman Studds on June 16, 1981. Rather than reiterate that still accurate information, I request that the committee take that statement as a reference for program derivation authority and implementation methods.

For statement mentioned above, see Merchant Marine and Fish-

eries Committee hearings, Serial No. 97-12.]

Admiral Lusk. The objective of the commercial vessel safety program bears repeating, sir. That is that the minimization of deaths, personal injuries, and property loss associated with vessel and other facilities engaged in commercial or scientific activity in the marine environment.

By enforcement of statutes and associated regulations we try to prevent marine casualties. There are instances when these efforts are not successful; the Ocean Ranger is one of those instances.

When a marine casualty occurs it represents a failure of some part of the commercial vessel safety system. This safety system is a collective one, which as a minimum, encompasses regulatory bodies, vessel owners and operators, and the personnel on board.

The Coast Guard has a casualty investigation program which serves as a feedback loop to determine the appropriateness of current regulations and standards, as well as whether or not addition-

al measures or legislation should be recommended.

The type of Coast Guard response to a casualty is directly related to its severity. At one end of the spectrum is an owner/operator submitted reporting form which may not require Coast Guard presence or onsite investigation, contrasted with the most sophisticated of our investigative processes, the Marine Board of Investigation. Marine Boards of Investigation are appointed by the Comman-

Marine Boards of Investigation are appointed by the Commandant and are essentially an independent body for the duration of the Board. It is a formalized procedure which is broken into stages: factfinding, the taking of testimony under oath for example, collection of relevant documents and exhibits; analysis of the facts, during this phase the Board can call on the full technical resources

of the Coast Guard as well as other agencies and resources in the private sector; and, last, development of findings, conclusions, and recommendations.

In the case of the Ocean Ranger we have appointed a five-man board which is headed by Rear Adm. Henry H. Bell, my predecessor, and presently the commander of the 9th Coast Guard District in Cleveland.

There are two other Coast Guard officers, both captains on the board and two representatives from the National Transportation Safety Board.

The Board was convened on February 17, 1982, at the direction of the Commandant and they are currently in the factfinding stage

of their investigative effort.

It is our understanding that the Canadian Government is also going to conduct an investigation. We have been in contact with the Canadian Government through the Department of State in an attempt to work out details of evidence availability and mutual co-

operation.

Mr. Chairman, the Ocean Ranger is a U.S.-flag self-propelled semisubmersible drilling rig. This type of mobile offshore drilling unit is subject to Coast Guard inspection and certification. It is of twin-hull design, typical of most semisubmersible drill rigs. The 398 foot long by 262 foot wide rectangular platform is attached to and supported by the twin hulls via eight vertical columns, four per hull or pontoon giving the structure a depth of 134 feet.

For additional strength and stability, substantial bracing and crossmembers connect all major structural components. When onsite and drilling, approximately 80 feet of the Ocean Ranger, including the twin hulls and the lower portion of the supporting columns, are submerged in the water. Ballast tanks are used to maintain the rig at this stabilized working draft. The rig has quarters for 100 persons and utilized twelve 45,000-pound anchors for mooring.

The Ocean Ranger was built at the Mitsubishi Heavy Industries Shipyard in Hiroshima, Japan. Launched in 1976, it was initially registered in the Republic of Panama and classed with the American Bureau of Shipping, which gave the vessel a maltese cross

oceans 1-A rating.

Coast Guard involvement with the Ocean Ranger began in October 1979. Our officer in charge of Marine inspection in Providence, R.I., received a formal application for inspection and certification on October 5, 1979. Prior to that period, a series of plans had been reviewed to facilitate the inspection.

An inspection was conducted in Providence, R.I., by two Coast

Guard marine inspection officers.

Upon completion of the inspection, the vessel was deemed to be in substantial compliance with the applicable regulations and a certificate of inspection was issued on December 27, 1979.

The certificate of inspection specifies the minimum manning for safe navigation of the vessel, as well as detailing minimum require-

ments for life safety and fire protection equipment.

In this instance, the vessel was inspected in accordance with title 46, the Code of Federal Regulations, subchapter I-A, "Mobile Off-

shore Drilling Units." The vessel's certificate of inspection was

valid through December 27, 1981, a 2-year period.

You have probably read in the media that several Coast Guard inspectors were on their way to inspect the vessel at the time of the casualty. This bears some explanation concerning how inspections are scheduled; 46 U.S.C. 435 requires that U.S.-flag vessels have a valid certificate of inspection to avoid being subject to a penalty. This responsibility is the owners.

For mobile drilling units which are in international service, such as the Ocean Ranger, the master, owner, or agent may apply for renewal of the certificate at least 60 days prior to its expiration date. This application in advance of date of expiry is designed to minimize any delays to the vessel as well as serving to provide a smooth entry of the vessel's request for inspection into the Coast Guard's inspection schedule. That requirement that I mentioned appears in 46 CFR 107.215. If the vessel is outside the United States arrangements have to be made for travel, support, and other logistical details. In this case the request for inspection was made on February 2, 1982, and a team of two Coast Guard officers was scheduled to inspect the vessel on February 15, 1982.

The purpose of that inspection was to insure that the vessel was still in substantial compliance with the rules and regulations to which the vessel was initially inspected. The scope of that inspection is detailed in part 107 of title 46 of the Code of Federal Regulations. It is rather extensive in nature and impacts on the concerns of primary and secondary lifesaving equipment, fire protection and firefighting, subdivision and stability, and other specific issues

which affect the life safety aspects of the vessel.

A number of tests of operating gear are performed and the vessel's log is reviewed to determine if onboard drills and exercises have been conducted at prescribed intervals. Depending on whether or not deficiencies are found and the scope of the deficiencies, the certificate will be renewed.

There have been a number of claims and comments concerning inspections conducted by entities other than the Coast Guard during the interval after the vessel received its initial certificate of inspection on December 27, 1979. I am not going to be able to provide detailed information on those other than to indicate that the Marine Board, headed by Rear Admiral Bell, is in the process of gathering information on all aspects of the casualty, including surveys carried out by the American Bureau of Shipping; inspection carried out by other governments, that is non-U.S. Government entities, such as the February 4, 1982, inspection of the Ocean Ranger by Canada's Ministry of Energy, Mining and Resources; and, of course Admiral Bell's board will be looking into inspections and preventative programs carried out by the owners and operators of the vessel.

All of this is being compiled by the Marine Board. An annual inspection is required by mobile drilling units on the U.S. Outer Continental Shelf. Our headquarters records do not indicate that such an inspection was conducted between the 10th and the 14th month of the 24 month period of validity of the Ocean Ranger's certificate. This, as are so many other specifics, is being verified by the Marine Board.

Mr. Chairman, I would like to close my formal testimony by providing you my assurance that the Coast Guard is fully prepared to cooperate with this committee concerning this unfortunate incident.

I would also like to express my confidence in the overall safety system that is in effect. The system is one, as I pointed out earlier, which is a shared responsibility. We are given the authority to provide regulations as a foundation for safety based on specific legislative mandates. The majority of this legislation had as its genesis, Mr. Chairman, a specific catastrophe from which lessons were learned and improvements to the system were made. If we drive or force the risk to a zero risk situation, Mr. Chairman, it becomes a self-fulfilling prophesy that there will be no risk because the endeavor will cease.

At the other end of the spectrum are the casualties or catastrophies which necessitate governmental involvement. I am confident that there is much to be learned from the Ocean Ranger tragedy. We are pursuing a course of action which will provide the answers we are all interested in: What happened? What could have prevented it? Does more need to be done?

Thank you, sir.

Mr. Jones. Thank you, Admiral.

The next witness on the inspection panel is Mr. Price McDonald, Chief of the Branch of Offshore Field Operations of the Department of the Interior.

Mr. McDonald?

## STATEMENT OF PRICE McDONALD, CHIEF, BRANCH OF OFF-SHORE FIELD OPERATIONS, MINERALS MANAGEMENT SERV-ICE, DEPARTMENT OF THE INTERIOR

Mr. McDonald. Thank you, Mr. Chairman.

I am Price McDonald of the Minerals Management Service. We formerly were part of the Geological Survey. Thank you for the opportunity to testify.

Although we had no responsibility in connection with the Ocean Ranger, I will briefly describe the functions of the Minerals Management Service on the Outer Continental Shelf, particularly as

they relate to drilling from mobile vessels in U.S. waters.

Our OCS lease supervision responsibility is confined to personnel and equipment safety, as related to drilling operations, conservation of resources, and the prevention of pollution. This is accomplished through regulations and orders that are carried out by field inspections and by review of applications and proposed plans.

Exploratory drilling from a mobile or fixed unit is in accordance with an approved exploratory drilling plan. If the proposed activity involves a mobile drilling unit which has not operated previously in OCS water, a detailed rig inspection is conducted before com-

mencing drilling activities.

In accordance with a December 18, 1980, memorandum of understanding with the Coast Guard, the Minerals Management Service review involves drilling equipment, drilling safety systems, and other well-control equipment, and operational procedures related to the drilling operations.

Technical review of the structural integrity of the unit, construction and arrangement, stability, and emergency systems are the responsibility of the Coast Guard.

A detailed inspection program was established in the early 1970's to insure compliance with regulations and orders. This program

covers both production and drilling operations.

For production operations, lessees and operators are required to conduct inspection and testing of certain equipment and facilities at periodic intervals and certify that such inspections are carried out and appropriate corrective measures taken.

Compliance inspections by Minerals Management Service person-

nel are supplemental to these required inspections.

For drilling operations, Minerals Management Service personnel inspect blowout preventers and other well control equipment, as well as the checking of personnel qualifications. During routine drilling operations, compliance inspections are conducted prior to the commencement of actual drilling operations and at least once during the drilling period. Drilling operations in frontier areas are inspected more frequently.

The basic inspection guide is a uniform checklist used by the Minerals Management Service regions. Prescribed enforcement

action is taken if noncompliance conditions are discovered.

Enforcement actions consist of written warnings, civil penalties, or platform, zone, equipment, or pipeline shut-in, depending upon

the enforcement action specified.

Minerals Management Service regulations require lessees to notify the Deputy Minerals Manager of serious accidents and all fires relating to oil and gas operations on the lease and submit a full written report on the incident within 10 days.

The Minerals Management Service has the lead in investigating accidents which occur during, or are directly related to oil and gas lease operations. The Coast Guard becomes involved in these acci-

dent investigations when a fatality occurs.

The Minerals Management Service forms a field investigation team upon notification of an accident. The team leader makes all necessary plans or arrangements, assembles the investigation team, arrives at the accident site as soon as possible, and directs the onsite investigation. Upon completing the investigation the team prepares a report which summarizes the conclusions of the investigating team.

The Minerals Management Service is presently working with the Coast Guard to coordinate the implementation of responsibilities in accordance with the OCS Lands Act Amendments. We have had an excellent working relationship with the U.S. Coast Guard and believe the amendments can be effectively implemented without un-

necessary duplication.

This concludes my testimony. I would be glad to answer any questions you might have.

Thank you.

Mr. Jones. Thank you, Mr. McDonald.

To those members of the committee who were not here this morning, we will now question any one or all three of the witnesses who just appeared.

I have a few questions and I will direct mine to Mr. Borum, if

The 1979 Marine Board of Investigation Report, looking into the

Ranger One drilling rig, some 3 or 4 years ago concluded:

The casualty may have been prevented had the existing fatigue crack been detected while the unit was in dry dock. However, the commonly accepted method of visual examination was inadequate to detect the crack. Nondestructive testing, depth penetrance, ultrasonic or magnetic particle examination could have detected the fault.

When the ABS inspected the Ocean Ranger last June, did the inspector only conduct a visual examination of the high stress areas or did he use nondestructive tests on all of the high stress areas?

Mr. Borum. From the best available information he found it not

necessary to use any nondestructive testing methods.

Mr. Jones. And, therefore, conducted only visual examination?

Mr. Borum. That is right.

Mr. Jones. As I understand it, Norway is considering requiring periodic nondestructive testing as a result of the Alexander Kielland accident. Do you think this should be done on our semisubmersibles?

Do you have any recommendation along that line?

Mr. Borum. Norway has implemented a required nondestructive testing procedure. The American Bureau of Shipping has also implemented that same procedure at intermediate surveys and special surveys.

Mr. Jones. In both the accident on the Ranger One and the Alexander Kielland, the conclusion reached by the respective government investigating boards was that the faults caused by stresses had been subject to inspection in shipyards. Yet, in both cases, the inspectors missed the fatal crack. What can be done to improve our inspection procedure to make sure that this does not happen?

Mr. Borum. We have no evidence that there was any fracturing, in fact we have no evidence of any cause specifically on the Ocean Ranger. The Ranger One is still in litigation and I would prefer not

to comment.

Mr. Jones. All right, sir.

Do you have any requirements or rules to insure that a porthole will not break under expected conditions, such as a storm, with blowing ice? And, did you conduct any tests on portholes last spring? If so, how strong must they be? What are your requirements?

Mr. Borum. The glass is required to be tempered and is required to meet the loading as specified in a particular ruling and I do not have that ruling available to me. We can obtain it and advise you.

Under normal circumstances, sea striking the glass would not

cause it to fracture.

Mr. Jones. All right. So, the Ocean Ranger, and the rigs in the area were icing heavily. If the Ocean Ranger was covered with 2 feet of ice it has been estimated that it would add at least 500 tons to the vessel's weight. How does this affect the center of gravity and the stability of a vessel like the Ocean Ranger?

Mr. Borum. I am not sure about the effect on the center of gravity or the stability but it would variously affect the live load that

could be used and the rig personnel would be expected to compensate for these things.

Mr. Jones. Admiral Lusk, I have one short question for you, sir. Do you have any information which might indicate that a mobile

supply vessel had one of the Ocean Ranger's lifeboats in tow?

Admiral Lusk. Sir, I heard somewhere, I do not know whether it was a press report or not, but I did hear somewhere that there was one of the lifeboats that may have had survivors in it that was approached by some sort of an offshore supply vessel or something.

I asked Admiral Bell about that and the Admiral was going to

look into that but I do not have any information on that, sir.

Mr. Jones. If you get the answer to that, would you supply it to the committee, please?

Admiral Lusk. Certainly.

Mr. Jones. The Chair recognizes Mr. Carney.

Mr. CARNEY. Since the Ocean Ranger had been active in U.S. waters, both in Alaska and on the east coast, you must have records of inspection. Is that correct?

Admiral Lusk. Sir, I am not aware of any records of inspection of the vessel's operation prior to the date I mentioned in my opening statement. It was a foreign-flag vessel and it was not subject to our inspection.

I do not know whether there had been any boardings by our captain of the port people. I am not familiar with that. Our inspection

information system has no data on that to my knowledge.

Mr. Carney. When it became a U.S.-flag vessel should not that have been brought into a drydock and inspected by the Coast Guard?

Admiral Lusk. As a general rule, vessels that are reflagged would, of course, be thoroughly inspected and that would include

some sort of underwater body examination.

As I understand this one, mind you I do not have the inspection records, the vessel was inspected in Providence, R.I. At the completion of her inspection she was issued a certificate of inspection on December 27, 1979, and had an outstanding requirement to drydock the vessel prior to a certain date in May or June of the next year.

Mr. CARNEY. Was it drydocked for that requirement?

Admiral Lusk. My inspection records show that it was given a procedure that we consider an alternative to drydocking; a rather different type of procedure wherein the vessel was brought up to a very light draft, most of its hull being exposed in a certain type of underwater body examination conducted with the use of video cameras.

Mr. Carney. And that was conducted?

Admiral Lusk. Yes, sir.

Mr. Carney. Can you provide for this committee the results of that inspection?

Admiral Lusk. Certainly, sir.

Mr. Carney. Thank you.

Once it was in Canadian waters, you were scheduled to go out and inspect at one other—before, right before the accident happened, that you were scheduled in such a manner that you would probably have taken care of that a week or two following the accident. Is that correct?

Admiral Lusk. As I recall, sir, the chronology was that our inspector was due to leave from Providence, R.I., on the same morning that the vessel had its casualty. I believe he was due to leave at either 9 or 10 o'clock on a plane in the morning. There were two inspectors going out.

Mr. CARNEY. Did the Coast Guard have the jurisdiction over the

master and the seamen on that vessel at all times?

Admiral Lusk. Yes, sir.

Mr. CARNEY. What were the responsibilities of the abled and ordinary seamen on the mobile offshore drilling unit when it was underway and when it was at the point of exploration?

Admiral Lusk. The manning that is required on our certificate of inspection is quite varied depending upon the operating mode of

the vessel, sir.

If she is in a self-propelled mode, the manning is quite different. If she is on station in a moored or anchored mode, it is, of course, quite a bit less. If the vessel is underway, then the complement assures that we have licensed officers who are in charge of the navigation, we have able seamen who are provided in sufficient quantities to stand duties as wheelsmen, as lookouts, and to be available should, God forbid, there be a case where you have to use your lifesaving equipment. The able seamen would be able to help in that.

When the vessel is on station the responsibilities are quite different. There you have a responsibility—or should I say requirement-for one licensed master. You will note on the certificate the

type of license that is required; it varies.

We have a lesser number of ordinary seamen; they are essentially there for a certain watch standing and for certain lifesaving purposes.

Mr. Carney. Would one of you gentlemen, and I do not care which one, mind telling this committee what the safety record of the semisubmersibles is, in general? Particularly, those that are

conducting activities in U.S. waters?

Admiral Lusk. Well, sir, I do not profess to have a thorough analysis of that question; we simply did not have enough time to research it properly. But, we did have one of our statisticians make or punch a few buttons in the computer this morning and we did come up with a few things that indicate—let me see if I can inter-

pret them.

Between 1955 and 1981 there have been some 17 semisubmersible casualties. Of these, 5 were total losses and 12 were damaged and repaired. That, for the semisubmersible type of vessel. There were 144 rigs in worldwide service and 19 in U.S. service. A total of 193 mobile drilling units considering 4 types, jackups, semis, shipshape and submersibles. Our people ran some statistics that I cannot really profess to stand behind but they indicate that for a semisubmersible it looks like so far 1 loss for every 184 rig years. Mr. Carney. How would that compare with the others?

Admiral Lusk. Once again, with the same caveat, sir, this is not really a very sophisticated study. Jackups, we have 1 loss in 78 rig years, semisubmersibles of this type, 1 loss in 184, submersibles 1 loss in 221, and shipshape 1 loss in 262 rig years.

Mr. Carney. I am somewhat curious as to why you do not have the type of statistics that would give us that comparison. Can you provide that for us at a later date? Could you punch more buttons and try to show us the comparisons among the five common modes?

Admiral Lusk. Yes, I did not become aware until this morning at about 8 o'clock that you were interested in this, so the statisticians

did not have much time.

Mr. Carney. I appreciate that, but you could provide that for us? Admiral Lusk. I will do my best. It is easier relative to the U.S. Fleet, sir. I have a tough time relative to foreign fleet, we do not always get all the information but I will do the best I can.

Mr. CARNEY. Thank you very much, Admiral. Thank you, Mr.

Chairman.

Mr. Jones. Mr. Breaux?

Mr. Breaux. Thank you, Mr. Chairman and thank you panel.

Admiral Lusk, how important would you describe a Coast Guard inspection certificate in determining the seaworthiness of a vessel. Would you describe it as slightly important, somewhat important, or very important?

Admiral Lusk. The certificate, of course, is a manifestation of the condition of the vessel. I consider the vessel being in compliance with the statutes that you have passed and the regulations that we

have implemented to be of absolute necessity.

Mr. Breaux. How many rigs' that are currently required by the Coast Guard to be certificated by the Coast Guard for inspection purposes, are currently operating without a valid, updated, certificate of inspection?

Admiral Lusk. I cannot tell you that, sir.

Mr. Breaux. Why not?

Admiral Lusk. I do not know the answer.

Mr. Breaux. Why not?

Admiral Lusk. The procedures that we have in place are such that the owner is responsible for having his vessel inspected while we issue the certificate of inspection.

Mr. Breaux. Let me interrupt at that point. The statute says,

and I will paraphrase:

The head of the department in which the Coast Guard is operating shall require the Coast Guard to inspect, at least once every 2 years \* \* \*. "Shall require".

Now, is the Coast Guard inspecting every vessel that is supposed to be inspected every 2 years?

Admiral Lusk. Yes, sir.

Mr. Breaux. Did they inspect the Ocean Ranger within 2 years? Admiral Lusk. No, sir.

Mr. Breaux. Obviously, they are not doing it in every case.

Admiral Lusk. You have drawn a conclusion there, sir.

Mr. Breaux. Well, an obvious conclusion. You just testified that you did not inspect this vessel within 2 years as the law requires.

Admiral Lusk. Well, just let me explain for a moment.

Mr. Breaux. Please follow the line of questioning.

Admiral Lusk. I would rather explain, sir.

Mr. Breaux. Well, let me ask you the question and then see if the explanation has anything to do with the question.

I am trying to find out how many vessels under your jurisdiction are currently operating without a valid updated Coast Guard certification of inspection. You said that you do not know and I ask you "why not?"

Admiral Lusk. The problem, of course, sir, is that you are quoting from one statute and that statute from which you are quoting appears, at least the way you are reading it, to suggest that it is

our responsibility to inspect.

Mr. Breaux. Is there another statute which contradicts this one and, if so, which one?

Admiral Lusk. There are two that clarify it, sir.

Mr. Breaux. OK. Which two?

Admiral Lusk. 46 U.S.C. 399 which reads:

### AUTHORITY TO PROVIDE INSPECTION CERTIFICATES

No vessel required to be inspected under the provisions of title 52 of the revised statutes, shall be navigated without having on board an unexpired regular certificate.

The second one that I refer to is——

Mr. Breaux. Let us talk about the first one. Has that statute in any way changed the statutory obligations of the Coast Guard? The statute reads, "shall inspect every 2 years."

Admiral Lusk. Well, sir, you quoted from one that I do not have

in front of me but--

Mr. Breaux. Is that not the most critical one as far as inspecting vessels for a certificate of inspection?

Admiral Lusk. It might be, sir, but not for determining whose responsibility it is to have the vessel inspected.

If I could make reference to the other statute, sir, 46 U.S.C. 497

which reads, "if any vessel navigated——

Mr. Breaux. That does not, in any way, change the obligation that the Department of Transportation shall require the Coast Guard to inspect at least once every 2 years. You are saying that another statute somewhere says that if a vessel is not inspected that the owner is going to suffer a \$500 penalty but that in no way changes the Coast Guard's obligation to "shall conduct an inspection every 2 years" does it?

Admiral Lusk. Yes, sir, it does. At least if I can explain.

We have roughly 11,200 vessels that are under inspection. I will admit that they are not all MODU's. We only have several hundred MODU's as I have mentioned. But, those vessels, particularly in this area are in international service. Many of them are in foreign service, some of them occasionally get taken out of service and some of them are laid up and when the vessels are navigated they are required to be inspected.

Mr. Breaux. Are you telling this committee that because this vessel, under the terms of the law, happened to be anchored off of Newfoundland, that it was not required to have any valid, updated

certificate of inspection under the Coast Guard rules?

Admiral Lusk. I did not say that, sir.

Mr. Breaux. Are they required to have one at the time they were anchored out there?

Admiral Lusk. Yes, they were, sir. Our legal people have interpreted being anchored in that fashion on somebody else's Outer Continental Shelf as "being navigated".

Mr. Breaux. I take it that unless the person who is the holder of the certificate happens to pick up the telephone and call the Coast Guard that you do not in and of yourself initiate an inquiry or a notification process to tell someone that their certificate has expired. Do you have a procedure to notify a semisubmersible rig owner that the certificate is inviolate?

Admiral Lusk. We do not have such a procedure, sir.

Mr. Breaux. Again, why not?

Admiral Lusk. One of the difficulties with all the 11,200 vessels that we have under inspection is that they have certificates that expire in a certain period of time. The way we have interpreted it is that the burden is upon the owner to make applications for the certificate so that he will not be in violation of the statute.

Mr. Breaux. I want you to explain to the committee, and I hate to interrupt because this is a key point—the law says that the Coast Guard shall require inspection of these vessels every 2 years. Now, the Coast Guard apparently has interpreted the statute to mean that, "the owner should notify us when it expires." In theory what you are telling this committee is that if the owner never notifies you that the inspection certificate has expired that that vessel could continue to operate in infinity without a valid inspection sticker. Is that correct?

Admiral Lusk. I believe that the statute that you paraphrased from indicated that the Coast Guard is responsible to do the inspection when the vessel is in navigation. One of the difficulties is that we do not know when the vessel is in navigation.

Mr. Breaux. You have indicated that there is no question in your mind that this vessel which was anchored should have had a

valid Coast Guard certification at the time.

I hope you are not trying to get around the fact that somehow it was not navigating and, therefore, it did not have to have a valid Coast Guard certification.

Admiral Lusk. I am not going to do that, no.

Mr. Breaux. In fact, it did have to have one under Coast Guard regulations.

I have expired my time, Mr. Chairman. I have some more questions if we have time later.

Mr. Jones. Mr. Shaw?

Mr. Shaw. Thank you, Mr. Chairman.

I would like to followup on a few questions from earlier this morning with regard to the lifesaving equipment. We heard, I believe from Mr. McIntosh, that there is really no lifesaving devices that could have been aboard that platform that would have, in the storm that was being encountered at the time, saved the lives of the men that were manning the platform at the time of the tragedy. Do you agree with that statement?

Admiral Lusk. Sir, I think that the equipment that was aboard is the very finest that is available in the world today. I think that if someone were able to launch it, if someone had been in the covered lifeboats that were required—I would like to point out that those are motor lifeboats, they are covered, they are self-righting which

means if they capsize they go back upright again, they have seat belts that individuals are supposed to put on to keep them in. It would be a rough, rough ride I assure you, but we like to think that if someone was in one of those, properly secured, or a number of people in them properly secured, they could survive almost anything. Now, I will admit that there would be some circumstances where you would have waves that might be so steep that you might have the vessel actually pitch polling, the small boat actually pitch polling in a heavy sea where it would be-going end over end rather than rolling over, so it is conceivable that we could have a sea in which people could not survive. But, the lifesaving equipment that they had, we like to think was such that the people could survive.

Now, getting into the lifeboats and getting them safely launched without being smashed against the side of the ship, that might be

another problem.

Mr. Shaw. Is there any indication that those particular boats were launched?

Admiral Lusk. I believe——

Mr. Shaw. With people in them?

Admiral Lusk. I believe—and here I have nothing more to go on than heresay and newspaper reports—that there were three lifeboats that were found to be fully floating or at least partially floating. I believe that at least one of the reports said that there were some people, whether they were alive or dead I do not know that were originally noted to be in at least one of the lifeboats.

Mr. Shaw. Are you saying, sir, that the bodies were found in the

lifeboats?

Admiral Lusk. I am saying that I have very poor information but I have heard something to that effect.

Mr. Shaw. I have a question for Mr. McDonald.

What is your specific responsibility for safety operations on an offshore drilling unit and do you have any responsibility for the seaworthiness of MODU's during the drilling operation?

Mr. McDonald. Well, our responsibility is the well itself and the

operations connected with it.

In the drilling mode, we are the responsible agency but our responsibility is with blowout preventors, the casing program and the safety features connected thereto. I think that is sort of what you are asking.

Mr. Shaw. What are your responsibilities for the inspection and

what exactly do you inspect?

Mr. McDonald. When a MODU is coming into our leases offshore we inspect it before commencing any drilling operation. Our inspection is aimed at being sure that the drain equipment and the antipollution equipment is in order, that the proper blowout preventors are on hand, and that the people who do the roughnecking and all are trained, certified and required to carry a card of such certification. The inspection is built around the well drilling operation.

Mr. Shaw. May I ask you what type of records you would have

for inspection of the Ocean Ranger?

Mr. McDonald. I think I mentioned that we inspect at the beginning in frontier areas. We inspect these riqs quite frequently and I can say, well across the board, that we are on these operations in

frontier areas about once a week. The Ocean Ranger, which I have brief information on, drilled seven wells off the coast of Alaska over parts of 1976 through 1978 in waters ranging from 300 feet-500 feet depths. Two of these were in the Lower Cook Inlet, and three were in the Gulf of Alaska. There were two preleased drill wells that we call haust wells in the Bering Sea and we had no violations according to our inspections, and believe me, in that area of our operations we are on those rigs a lot. That is not to say that we found nothing that even warranted a warning but we had no serious deficiencies.

Also, the Ocean Ranger drilled lastly in 1980 in the mid-Atlantic for Murphy Oil Co. in 400 feet of water and they abandoned that well in May 1980. So, we have a record of roughly eight wells.

Mr. Jones. The Chair recognizes Mr. Studds.

Mr. Studds. Thank you, Mr. Chairman.

Admiral Lusk, my questions will be directed at you. My concern is first of all that we understand what the legal requirements upon the Coast Guard in the situation are, and second, did the Coast Guard fulfill those requirements, and, of course, finally whether the law itself is adequate.

At the time that the rig was inspected in Providence you said in your statement that upon completion of the inspection the vessel was deemed to be in substantial compliance with the applicable regulations and a certificate of inspection was issued on December 27, 1979.

I assume that the statement, "substantial compliance" means that there are at least some respects in which the rig was not in compliance. Is that correct?

Admiral Lusk. The inspections are issued or at least documented, sir—on a form and I was not trying to come up with a cute escape word. I try to refer to the phraseology that is on the form itself, sir.

Mr. Studds. I was not trying to suggest that you were being evasive. My understanding, at least based on rumors that we have all heard in the last few weeks, is that there were, indeed, some areas in which the vessel at that point did not meet the full inspection requirements. Is that true?

Admiral Lusk. The only area that I am aware of, sir—and it might be that when we get the full inspection file that there will be others—the only area I am aware of is in the one area of a deficiency relative to the requirement for drydocking. That is the only exception that I am aware of.

Mr. Studds. There were no exceptions whatever with respect to lifesaving equipment or procedures of that sort?

Admiral Lusk. Not to my knowledge.

Mr. Studds. OK. You said on the next page, page 4, that the law requires that U.S.-flag vessels have a valid certificate of inspection "to avoid being subject to a penalty." Would that statement also have been true if it had read that the law requires that U.S. vessels have a valid certificate of inspection in order to operate? Or, only in order to avoid being subject to a penalty?

Admiral Lusk. The statutory requirements is one that is that they have to have the valid certificate in order to navigate. If they operate without having the valid certificate then they are in viola-

tion and the penalty is possibly to be assessed.

Mr. Studds. A penalty is to be assessed but they are not to be

ordered to cease operating, is that correct?

Admiral Lusk. If we are talking about something—a violation in the nature that might be a violation of our authority under the Ports and Waterways Safety Act where we have some sort of tremendous threat to the U.S. environment, where we have some sort of tremendous threat to a port, to a river system or something, then certainly a different statute would come into effect. We might well tell them to cease and desist and make them. But, in this case, sir, where they have a valid or rather expired certificate of inspection that is off of our territorial area, we have the weight of the penalty and the weight of our being able to take administrative action against the license of the individual who is the master.

Mr. Studds. Well, you certainly could have revoked the certifi-

cate, could you have not?

Admiral Lusk. We could not revoke a certificate if they did not

have one.

Mr. Studds. That is interesting. The analogy that springs to mind is the certification requirements for a commercial aircraft. It is not my field, but I assume that the moment an aircraft finds itself without a valid certificate, it is grounded without any further ado and cannot participate in commercial operations.

Admiral Lusk. I cannot speak to that, sir, but I draw the analogy of a motor vehicle. The vehicle is required, in Virginia at least where I live, to have an inspection every 6 months. If you do not have it you do not get any notification from the State. If you run the vehicle with an expired certificate then in all probability you

will end up paying a penalty when a policeman catches you.

Mr. Studds. You say that for vessels in international service, such as the Ocean Ranger, the master, owner, or agent may apply for renewal of the certificate 60 days prior to its expiration date. Again, there is obviously some confusion in some of the reports that have been circulating in the preceding weeks. The law reads just as you have stated it there, I believe, that they may apply, not that they must apply. Is that correct?

Admiral Lusk. I attempted in there, sir, to make a reference to

the regulations that implemented the statute and——

Mr. Studds. What I am getting at is, is there a statutory requirement or a requirement in the regulations that the owner of such a vessel give you, the Coast Guard, 60 days notice prior to the expiration.

Admiral Lusk. That is a regulatory requirement.

Mr. Studds. Is it a requirement or is the operative verb in that regulation "may"?

Admiral Lusk. Could I read the regulation?

\* \* Master, owner, or agent of a certificated unit operating in international service may apply for a certificate of inspection by submitting a completed application for inspection of a U.S. vessel form to the appropriate officer in charge of marine inspection at least 60 days before the expiration date that appears.

Mr. Studden I am having trouble with this language here. Let us get out some of the intervening verbiage. They say, "\* \* may apply \* \* \* at least 60 days prior."

Admiral Lusk. I would imagine, sir, and I did not write this, what they are probably saying is that if he does not want to contin-

ue to navigate the vessel, he does not have to renew his certificate. So, he may have the certificate renewed if he wants but if he does so he shall do it at least 60 days before—make the application at least 60 days before.

Mr. Studds. Leaving aside, I think, I am not a grammarian, but I do not think that is very good English that you may do something

at least 60 days before.

How is the Coast Guard interpreting this? In plain English what has the Coast Guard interpreted that to mean? Have you interpreted that to be a requirement in the event that the owner intends to operate?

Admiral Lusk. We have a somewhat similar, I would concede, possibly stilted phraseology that appears in a number of our other

regulations that apply to the remainder of the 11,200 vessels.

The way we essentially interpret it is that it is the owners responsibility, that he does not have to give us such a long leadtime to get the vessel reinspected unless the vessel is in some far distant or international service.

Mr. Studds. In the event that the owner is an English-speaking person, what is he to make of that requirement? And I am not being facetious, but what the hell does it mean? What is my obligation if I own a rig and I am within 2 or 3 months of the expiration of my certification, what do I have to do?

Admiral Lusk. Well, sir, I would think that if we read several of the statutes together, along with that regulation, you might possi-

hly get some insight.

My interpretation would be that in order to navigate a vessel that requires a certificate of inspection, and those are words virtually taken out of one statute that I quoted to Congressman Breaux, the vessel has to have a certificate. Then, I indicated that if the vessel is navigated without a certificate that you are liable for a penalty. The regulations that implemented the statutes indicate that in order to get that certificate, if you are an international service, you make application to the OCMI at least 60 days prior to the termination or expiration of your certificate.

Mr. Studds. I know that my time has expired but let me reask the question that got us into this morass in the first place. Is it, in your judgment, or is it not a requirement, legally binding upon the owner that such notice be given within at least 60 days prior to the

expiration of the valid certificate?

Admiral Lusk. I do not think there is any onus on the owner at all to renew the certificate unless he is going to operate——

Mr. Studds. Assuming he is going to operate?

Admiral Lusk. To be honest, sir, for enforcement purposes, if I were-doing the enforcement and if somebody turned in the application 40, 45, or 50 days before the expiration of the certificate I would do my very best and would succeed in getting the vessel inspected for him.

I feel that the logic behind that 60-day requirement is essentially

one that flows out of the former situation that we had, sir.

Back in the 1972, 1973, 1974, and 1975 era when I was involved in headquarters before, we did not even inspect these vessels overseas, or very, very few of them we did. We had a self-inspection check-off list and we used to write to the companies and ask them if they would complete voluntarily the self-inspection check-off list

and tell us when the vessel came back into U.S. waters.

The reasons for this were severalfold. One, we did not have the travel money. In 1980 Congress added to one of our appropriations bills, I believe, the authority for us to require individuals who had a rig operating in international service, require them to pay for our travel expenses. So, essentially, they now pay the travel expenses and these regulations came out subsequent to that.

Mr. Studden. I suppose that it is some comfort that the situation is not as bad as it was, but I do not know how flexible you are going to be in interpreting that, you say, 40 days, 45 days, what if they did it 10 days after the expiration? Is that in compliance?

Admiral Lusk. Then they would pay a \$500 penalty I would

assume.

Mr. Studds. How much does it cost per day to rent one of those rigs?

Admiral Lusk. I am not the right man to answer that.

Mr. Jones. Could I interrupt the gentleman, please. The Chair senses that there are more questions and since we have such few members present we will go around again with the same panel.

Mr. Studds. Mr. Chairman, may I just answer the question for the record, if the gentleman from Louisiana is correct, the answer to my question as to how much this rig rented, I am told from an unimpeachable source from Louisiana, rents for \$123,000 per day. Is that correct? Is that about right? I see knowledgeable heads shaking there. Could someone answer that for the record?

Mr. Jones. I was under the impression it was about \$100,000, I

do not know.

Mr. Studds. It is \$93,000 per day and the fine is \$500 for an in-

definite period of noncompliance?

Admiral Lusk. It is \$500 per instance, sir. It is right out of the

Mr. Studds. How long is an instance?

Admiral Lusk. Well, the statute, sir, says \$500 for each offense. Mr. Studds. Well, one failure to report is one offense, I would presume?

Admiral Lusk. I would assume so. That is the way I would expect

it.

Mr. Jones. In view of the interest shown toward this panel, the Chair is going to announce that we have a series of questions one more time. It appears now, based on what has just been said about the projected \$93,000 per day fee, if an owner chooses not to renew, but continues to operate, he is subject only to \$500 per day. Is that correct sir?

Admiral Lusk. Mr. Chairman that is \$500 for an offense, it might not be for a day. If the thing was overdue for 30 days they would probably still pay \$500. Mr. Jones. That is even worse.

Admiral Lusk. Yes, sir. Thirty times worse.

Mr. Jones. Further question: Let us say that he has an offense each day for 30 days, and he chooses to pay the \$500, rather than submit to the inspection certification. What sort of action will the Coast Guard take—enforcement action to shut him down, or could he go on indefinitely?

Admiral Lusk. First of all, one might say that theoretically, he

could go indefinitely.

The Coast Guard would certainly take action and charge the master of the vessel and you might expect that in all probability he would get his license revoked. But they could always hire another

master and they could hire another master every day.

The fact is, and it has been my experience, that we are not dealing with an irresponsible industry here, sir. We are essentially dealing with people who sometimes make mistakes. So, typically, it has been my experience that when we find that something like this has happened there will be an explanation. They will be very apologetic and they will immediately submit the application. If they did not, then we would probably seek legislation or we would go to the press. I assure you that the industry could not stand the press.

Mr. Jones. Has the press been unkind lately?

Admiral Lusk. Not to me, sir.

Mr. Jones. I note that the Coast Guard presently plans to close its marine inspection office in Rotterdam, Kobe, and Singapore. Of course, these are locations where many drill rigs are constructed. Question: Will inspection to insure compliance with Coast Guard regulations be performed at these locations, or wait the arrival of the prospective U.S.-flag vessel at a U.S. port?

Admiral Lusk. Sir, it is our intent that the vessels will be inspected overseas in a somewhat different fashion than we are doing

now.

Mr. Jones. Then what will be your course of action in that respect? Will you appoint agents to act for the Coast Guard?

Admiral Lusk. What we are planning on doing is a combination

of things.

First of all, as I indicated to Congressman Studds, those who inspect vessels or have vessels inspected overseas now, are required to pay for our travel. So, typically, when a man makes an application for an overseas inspection job we enter into a little contract of sorts and in that contract we make sure that he understands he

has got to pay for our travel.

Now, that part of the agreement will be binding. We expect to have a lot more temporary additional duty travel. We will be sending people over to spot check overseas. Our inspectors from the United States will also be making delivery trials overseas and we are planning an additional implementation where, if the vessel is being classed by somebody other than the American Bureau of Shipping classification society, and there are some eight others in the world, then we would probably—we are planning on requiring two affidavits. One affidavit would be from the owner and the other would be from the classification society that they had chosen. Each of those two affidavits would indicate that the vessel had been constructed in accordance with plans that were either approved by the Coast Guard or the American Bureau of Shipping.

Now, of course, if the American Bureau of Shipping were the classification society by choice of the owner, then there would only

be one affidavit.

Mr. Jones. Thank you, Admiral. Of course, I am concerned about the closing of these foreign inspection offices, but I am more concerned about the closing of some bases in my district.

I now recognize Mr. Carney.

Mr. CARNEY. Admiral, do you think that the Congress should draw new statutes to toughen up the inspection requirements? Both from the standpoint of penalties to the user and from the frequency of inspection?

Admiral Lusk. Sir, I do not have any problems with the frequency of inspection nor with the scope of inspection nor our means of

implementation.

As a matter of fact, the statute that requires this particular type of vessel to be inspected used to require it to be inspected annually and Congress, I think in 1958, changed the statute and made it a biannual inspection, every other year, so Congress did speak a few years ago. I have no problem with that.

Relative to the penalties, certainly a \$500 a day penalty is ludicrous. On the other hand, I must admit that we are dealing here with companies that have such great investment that we do not

have frequent instances of them flaunting their certificates.

We typically have pretty close adherence to the inspection requirements.

Mr. Carney. Could you provide for this committee the number of times that these types of rig inspections were not met in a timely fashion?

Admiral Lusk. I am just trying to think of our statistical wherewithall to do that, sir, and it is almost impossible for me to do that. The difficulty is that we are not running now, we will in a few years—I have testified before about MSIS, the Marine Safety Information System, a computer system that we are putting in. We do not have that now and right now we have a situation that is so far from being real time, if you will, as would make that very difficult.

If we were, for instance, to ask the computer right now, how many vessels had expired certificates of inspection, the computer would just tell me how many vessels did not have, in our files, a record made or a record entry, that the certificate had been renewed.

Now, the problem is that we have 11,200 vessels out there. We have a 2- and 3- and 4-month period of time, lapse time, between the time the individual might have gotten the vessel recertificated and now. So, I am always unable to answer that type of a question.

Mr. Carney. We are dealing with oil rigs and not merchant vessels as such. In that one particular area, what would you think to the suggestion of having a penalty for each day that you run the rig past your expiration of inspection, for each day you are caught

doing that, you have to shut down your rig?

Admiral Lusk. Certainly, anything that you did to tighten up the penalty to make sure that those involved would be a little more attentive to detail. We are putting out new regulations that will be applying to our Outer Continental Shelf and those regulations are being developed and, of course, the Outer Continental Shelf Lands Act has an entirely different set of penalties. There, we have a \$10,000-per-day penalty and so the new regulations that we are

putting out for operations on our Outer Continental Shelf will have a \$10,000-per-day penalty, quite a bit different\_from the \$500-per-

day instance.

Mr. Carney. Well, a \$10,000-per-day penalty, when you are talking about a vessel that you rent for \$93,000, per day and some probably for \$100,000, \$120,000 and \$130,000 that becomes relevant again. If the fine was that you could not operate the vessel for the amount of days that your inspection has expired, I think that would insure that people would be bringing those vessels in for a timely fashion for inspection.

Admiral Lusk. I quite agree, sir. I do think though that there are a few other things that bear on here. There are situations of liability, possibly insurance lapses, which might be the case of vessels not certificated, these are other incentives, very very big incentives in some cases, to make sure that the vessels are inspected. I do not argue with you a bit though, I think that the increased penalty

would certainly be of benefit.

There is one thing, though, that I would like to make a small point. I do not know of any vessel that has ever sunk because its certificate expired. The owners have a responsibility to stay in compliance with the regulations and to me most of the inspection program is quite dependent upon the continued cooperation of the owners.

We inspect vessels effectively every 2 years, now we might do a mid-period of what have you, but we inspect the vessel—just for an instant, we see it as a picture, and when we see it we determine whether the vessel is in compliance or not. But the owner is expected to keep the vessel in compliance all the time so it is my hope that if the system is working when the Marine Board of Investigation gets done, that they will find at ODECO, that ODECO probably was in compliance with everything but the fact that they did not have the certificate renewed. That is my hope.

Mr. Carney. On the inspections you were required to bring it into drydock and your regulations allow you now to raise it further out of the water and then take photos of what remains under the water. How many times can you do that? Can you do that every 2

years?

Admiral Lusk. For the semisubmersible drilling rig, I do not believe that there—is a—limit. One of the difficulties, of course, is the recognition that some of those vessels are in pretty darn far off places and there are not too many shipyards in the world that can even fit them in. But, we have come up with a substitute that does not have a specific number of times that it can be implemented.

Mr. CARNEY. You are confident with the substitute no matter how frequently you would do that, that substitute technique gives you the information necessary to certify that vessel as being safe?

Admiral Lusk. My personal view is that the substitute technique is not as good as the drydocking But it is pretty close.

Mr. CARNEY. Thank you, Mr. Chairman.

Mr. Jones. Mr. Breaux?

Mr. Breaux. Thank you, Mr. Chairman.

Admiral, I do not think anyone, and I believe the record should be very clear, is trying to indicate that the expired Coast Guard certification was the cause of the accident. The two are separate and should be separately considered. Our committee's responsibility is to determine whether the agencies that we have jurisdiction

over are following the law as it was intended to be followed.

Earlier you responded to a question I asked concerning the number of rigs that are operating with an expired certificate and you told me that you did not know that number. My staff called your office this week and asked them the very same question. Your office called my staff back and told them that after they made a check they found out that there were, as of December 1981, seven rigs with expired certificates, and as of March 1 of this year, there were 10 additional rigs with expired certificates. Is that the correct information that your office gave me?

Admiral Lusk. Well, sir, I am not exactly sure what my office

gave you.

Mr. Breaux. Have you talked at all about that question with the

captain who came to see me in my office?

Admiral Lusk. I can recall indicating in response to one of the other questions, but I do not really remember who asked it, but I can recall indicating that the recordkeeping that we have makes it a patent impossibility for somebody to say how many vessels as an absolute fact——

Mr. Breaux. Is the statement that I received from your office correct or incorrect? Someone in your office called my office and said there were 7 rigs as of last December that were operating with expired certifications and 10 more with expired certifications as of March 1, 1982. Did I not get that information from the captain who is sitting next to you or from someone on your staff or from someone in the Coast Guard?

Admiral Lusk. Sir, it would appear that the information that you got was not properly caveated.

Mr. BREAUX. Properly what?

Admiral Lusk. Properly caveated; in other words, they——

Mr. Breaux. Admiral Lusk, this is a yes or no answer. Do you have seven rigs that have expired certificates and are there 10 more as of March 1?

Admiral Lusk. I am trying to explain, sir, that nobody on my staff can tell you whether that is the case. They can ask the computer—we have a little computer—whether or not the computer knows if the vessel were recertificated and the computer can look and it can say when the certificates were due to expire because it had that information in it—

Mr. Breaux. So it is in the computer?

Admiral Lusk. What I am talking about is on the computer——Mr. Breaux. When a certificate is issued, is it entered in a com-

puter?

Admiral Lusk. What we are doing is trying to implement the MSIS system piecemeal, as we get money and as we can do it. Part of it is being implemented now. It is not fully operational but we have part of it that is implemented and as we get from our field offices a written notification of a certificate of inspection having been issued and as we have the staff time we enter into the computer the information off of those certificates, so the computer would, presumably have known that a certificate was issued, let us say in January 1980. That data would be entered into the comput-

er. Some time later the owner would have made an application to get the vessel recertificated, the office would have gone out and done the job, the new certificate would be issued, when they got around to typing it the form would be typed and a copy sent to us, and somebody would make an entry into the computer-

Mr. Breaux. I would rather not delve into this process that you are outlining at this point. Captain, did someone in the Coast

Guard check the number of expired certificates as I requested?

Captain Decarteret. Yes, sir, and the exact words we notified you that there were seven MODU's that were overdue for inspec-

Mr. Breaux. Does that mean that it has been more than 2 years

since these rigs have been inspected?

Captain DeCarterer. Now, wait a minute, sir. That is not what we said. We said that they were overdue, that they had not had their certificate renewed. We have no record at headquarters. One of those MODU's, I happen to personally know is down in Chile. We had inspectors aboard it and the rig has been recertificated. The inspector got back from Chile some time in the middle of January. The paperwork is now being processed through our New Orleans office and we will probably get the notification some time late this month that the rig was reinspected on time and it will be 6 or 7 months before we can get it entered into the computer because we have only got one person to do it.

Mr. Breaux. That means that six rigs do not have current in-

spections, is that correct?

Admiral Lusk. According to the computer, sir.

Mr. Breaux. I am not trying to be difficult, but I feel that this is a very important question. You have a statutory obligation to inspect vessels every 2 years and the Congress is asking you how many of the ones that you are obligated to inspect every 2 years are not current. I realize that this is a difficult job; you are responsible for 11,000 vessels and probably almost 200 semisubmersibles. But you also have computer capability that should make this a reasonable task. Captain, is it also correct that during that search you also found 10 additional rigs that as of March 1 were, as you say, "not current?"

Captain DeCarterer. Not current.

Mr. Breaux. Not current. Does that indicate lack of a valid cer-

Captain DeCarterer. We do not know if they are valid.

Admiral Lusk. The thing is, sir, is regardless of whether you can make our computer take 10,000 or 11,000 entries or not, the com-

puter is no better than the information than you put into it.

Now, regardless of what my staff told you—I cannot attest to what they said—but all I can say is that it is patently impossible for my staff to know whether each of the vessels that the computer suggests might possibly be overdue for inspection is, indeed, overdue for inspection because there is a several months lapse there.

Mr. Breaux. If the Coast Guard cannot tell us that, who do we have to find out from?

Admiral Lusk. If there is a specific vessel that you are interested in I could, of course, find out by calling our field offices and seeing which of our 50 field offices might have conducted that so we could update our computer as of any particular instance that you wanted.

Mr. Jones. Mr. Studds.

Mr. Studds. Admiral, on page 5 of your testimony you say that an annual inspection is required of MODU's in the U.S. Outer Continental Shelf. I had thought that that requirement and that inspection was dropped as of January this year. In fact, the Commandant testified to that effect just last week here.

Admiral Lusk. I am trying to recall. I did skim over the Com-

mandant's testimony but I do not remember the exact—

Mr. Studds. It was in response to a question, it was not in his testimony. My understanding, and I asked the Commandant to confirm that understanding and I believe he did so, that the practice of an annual inspection was dropped, at least in part, because of

budgetary constraints upon the Coast Guard.

Admiral Lusk. I see. What we attempted to do and this is rather a lengthy thing, I believe on three different occasions, there have been successive efforts, we have had to cut back on certain non-congressionally mandated involvements of the commercial vessel safety program and because of budgetary constraints what we have had to do is cut out a number of things that we were not mandated by statute to do. Now, one of those things concerned certain vessels that we inspect as cargo and miscellaneous vessels, vessels that by statute used to have to be inspected annually, which in 1958 when the statute changed were to be inspected on a semiannual basis.

Mr. Studds. I was just handed the instruction, the telegram, from the Commandant to marine safety officers. I read from it:

In January, 1981, letters were sent to the 2d, 3rd, 5th, 8th, 9th, 11th, 12th and 13th districts permanently discontinuing mid-period inspections on all cargo and miscellaneous vessels in those districts. This policy is hereby extended worldwide and expanded to include MODU's.

That is dated January 7, 1982.

Admiral Lusk. Yes, sir. I am familiar with that.

Mr. Studds. In other words, the annual inspection has been discontinued?

Admiral Lusk. Well, sir, I am trying to lay the groundwork.

In August 7, 1980, there were certain inspection activities that were cut out due to fiscal year 1981 budget reductions. In January 28, 1981, the reference of the message that you have just read from, there was a letter sent out to most of our districts. We had originally thought it went to all of them but there were several districts that, apparently did not get it. And, that letter indicated, just about, what you had said.

Now, that letter did not in its text specifically exempt MODU's. In the message that you refer to—we got a new deputy in my office. He came from Boston, and Boston, for some reason or another, had not gotten a copy of the letter that went out on January

28, 1981.

Mr. Studds. I do not want to be impatient, but I only have 5 minutes. What is the answer to the question? Have we or have we not

discontinued the annual inspection?

Admiral Lusk. We do not have the statutory authority to discontinue the annual inspection on a vessel that is operating under the Outer Continental Shelf Lands Act on our Outer Continental Shelf.

Mr. Studds. So, you continue to inspect the MODU's in the U.S. shelf but not on other nations such as the incident of the Ocean Ranger?

Admiral Lusk. That is the way it is supposed to be.

Mr. Studds. Let me ask you, under the conditions as we understand them to have been at the time of the accident, is there realistically speaking any way in those last minutes that that rig could have been evacuated?

Can you launch those lifeboats under those circumstances?

Admiral Lusk. Well, to be terribly honest, I have wondered why we did not find more people in the lifeboats. I understand from something—I believe it was mentioned in earlier testimony—that the bow has been found to be badly damaged, the bow of the Ranger. I cannot help but wonder, sir, if possibly the vessel went down very fast.

Mr. Studden It would be irresponsible for us to try to establish that but what I am trying to get at is that under the ocean, sea, wind and wave conditions as we understand them to have been, do you have any experience under remotely similar conditions where

there has been a successful evacuation from a rig like that?

Admiral Lusk. I cannot recall one.

Mr. Studds. To the best of your knowledge of seamanship, is such a thing practicable? Can you launch those vessels under wave heights like that and under wind conditions like that?

Admiral Lusk. It can be done, theoretically it is possible.

Mr. Studds. I do not mean theoretically. Just speaking as a man of the ocean, is it likely you could get away with that? What are the odds?

Admiral Lusk. I would suspect that some of the vessels being launched would be damaged. I would suspect that there would be injury. I would expect some survivors.

Mr. Studds. What training do we currently require with respect to the use of that kind of equipment in extreme conditions like that on the part of the crew of these vessels?

Admiral Lusk. There is no requirement for specific training. There is a requirement in the regulations that they be told of their position, that they be exercised weekly in boat drills and that the master be responsible to make sure they know how to operate the equipment under those conditions. But as far as actual training, there is no training that is conducted by the Coast Guard, that is all done, if it is done at all, by the company.

Mr. Studds. There is a requirement for weekly boat drills?

Admiral Lusk. That is correct.

Mr. Studden. Does that include actually putting the boat into the water?

Admiral Lusk. What it means is that is—what they say is that everybody has to muster at their stations and at least one of the vessels has to be at least partially lowered and the engine operat-

Mr. Studds. Is one of the things that you look for when you issue your certificate of inspection, log confirmation that that has, in

fact, occurred?

Admiral Lusk. Yes, sir.

Mr. Studds. It is. I see. Well, obviously there is a lot of concern here with respect to the increasing likelihood of encountering these kinds of conditions as we move into the waters off New England and off Alaska and that raises the question that Mr. Breaux and others kept hounding away at you with respect to your—as you affectionately call it—little computer which I assume is your way of characterizing the Marine Safety Information System in its current status?

Admiral Lusk. Yes, sir.

Mr. Studds. How short are you of the kind of funding you would need to do to that system what you would like to do with it?

Admiral Lusk. Well, it will require a certain amount of time, sir.

Mr. Studds. Time or money?

Admiral Lusk. Both. The amount of money increases with the

shortness of time. In other words, the faster you want it—

Mr. Studds. Right. As far as I know not even this administration can control the passage of time, but money is something over which we have theoretically some control. What do you need and what have you got in terms of money?

Admiral Lusk. I believe that under the present plans we will

probably be able to have it online no later than early, 1985.

Mr. Studds. That is 1985?

Admiral Lusk. Correct. With an extra \$2 or \$3 million we could probably accelerate that by at least a year. I do not profess to be a

real computer expert.

Mr. Studds. Mr. Chairman, it seems to me that there are a number of lessons for us already here. One is that we ought to do the best we can in spite of precedents to the contrary, to draft statutes in English and even to insist that regulations implementing them be in related language so that those upon whom they bear can have some idea of what they are doing. I think, once again, we have a message with penny-wise and pound-foolish approaches to systems and equipment and men and women whose ability to do their job bears on human life, it is short-sighted in the extreme if we do not have the information that we need to respond to some of these questions and obviously we do not and that is not the fault of Admiral Lusk or any individual in the Coast Guard. If you do not have the money you cannot build a computer.

Thank you Admiral very much.

Thank you, Mr. Chairman.

Mr. Jones. Thank you.

Thank you gentlemen for your presence here this afternoon and your patience.

Our last witness is Dr. Joe Friday, Deputy Director for NOAA Weather Service.

Dr. Friday? I believe you are being accompanied by Dr. Flittner, is that correct?

Dr. FRIDAY. That is correct, sir.

Mr. Jones. You may proceed.

Dr. Friday. Thank you, sir.

STATEMENT OF DR. ELBERT W. FRIDAY, JR., DEPUTY DIRECTOR, NATIONAL WEATHER SERVICE, NATIONAL OCEANIC AND AT-MOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COM-MERCE, ACCOMPANIED BY DR. FLITTNER

Dr. Friday. Mr. Chairman and members of the committee, I appreciate the opportunity to appear before you here today to discuss the marine warning and forecast capabilities of the National Weather Service.

I will request that my prepared written testimony be inserted into the record at this point.

[Testimony of Dr. Friday follows:]

STATEMENT OF DR. ELBERT W. Friday, Jr., DEPUTY DIRECTOR, NATIONAL WEATHER SERVICE, NATIONAL OCEANIC ADD ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE

Mr. Chairman and members of the committee, I appreciate the opportunity to appear before you today to discuss the marine warning and forecast capabilities of the National Weather Service.

The mission of the National Weather Service is to provide prediction of weather conditions to the public regardless of where they live, work, and play and whether it be our nation's interior or along our Coasts and offshore areas. The number one priority of this service is to prepare and disseminate timely warnings of severe weather and ocean conditions so that evasive actions can be taken to reduce injury, loss of life, and damage to property. This is most important to those segments of the public who live and work where the ocean and atmosphere meet, perhaps more than any other place. The forces experienced in the marine area by winds, ocean waves, and currents are greater than anything that can be produced by man. To complicate this situation further, it is also an area where evacuation is the most difficult, thus re-

quiring warning as far ahead of time as possible.

The National Weather Service provides warnings and forecasts to the public for coastal waters up to 60 miles from shore, offshore, areas out to about 250 miles, and

by international agreement, certain areas of the high seas.

Nineteen coastal Weather Service Forecast Offices have marine warning and forecast responsibilities. In addition, the National Meteorological Center (NMC) here in Washington, prepares guidance material depicting present and future conditions of the weather and oceans. The nineteen forecast offices use the numerical guidance prepared by NMC. They also receive and use observations from automatic weather stations; cooperative observers along the coast, on offshore platforms, and aboard ships; satellites; radar; and instrumented buoys which provide additional critical information needed to prepare public warnings and forecasts for coastal offshore, and high seas areas. These services are disseminated primarily by radio communication. For the coastal and some of the offshore areas, this is accomplished by NOAA Weather Radio while for the offshore and high seas areas, the warnings and forecasts are broadcast by the Coast Guard, U.S. Navy, and private radio companies such as RCA and ITT. In addition, selected forecasts are distributed to other nations, including Canada, for further dissemination. The National Weather Service also collaborates with the National Bureau of Standards to provide high seas storm information for broadcast over radio stations used for time and frequency standards such as WWV.

A complete directory of marine weather dissemination entitled "Worldwide Marine Weather Broadcasts" is published by the National Weather Service and the U.S. Navy. This directory provides radio station locations, broadcast content, area of coverage, and communications mode for available marine weather services. For example, the directory indicates that weather broadcasts covering the site of the Ocean Ranger are made at 10 Canadian and 3 U.S. radio stations utilizing radiotelegraph, radiotelephone, and radiofacsimile. The Ocean Ranger site was located within the coastal and offshore area where warnings and forecasts are the responsibility of Canada. Because of its locations, we assume that the Ocean Ranger utilized the warning and forecast services as well as the radio dissemination provided by Canada. However, the National Weather Service did provide warning and forecast of the storm that passed through the area on February 15.

Mr. Chairman, I have provided the committee with several charts indicating the

track of the storm and the forecasts which were available as a part of our high seas

warning responsibility. The storm formed off the South Carolina coast early on February 13, and followed a Northeastward track off the U.S. east coast to eastern Newfoundland and into the North Atlantic. It was an intense winter storm, but not

a freak or extremely rare occurrence.

The storm track is normal for this time of year and was predicted by the numerical model at NMC and the forecasters at the Washington, D.C., Forecast Office. Beginning at noon on February 13, our forecasters issued warnings calling this a "dangerous storm" with winds of 50 to 80 knots and significant wave heights of 20 to 35 feet. In U.S. waters, it is standard practice to disseminate warnings of such storms over the marine distress frequencies in addition to the scheduled broadcasts I discussed earlier. It is our understanding that a similar practice is followed in Canadian waters.

Mr. Chairman, I would like to emphasize two points to the committee regarding the National Weather Service capability to provide adequate warnings and forecasts of the weather and ocean conditions for those segments of the public involved with

exploration and production of energy from offshore platforms.

First is, the National Weather Service has a basic framework to provide warnings and forecasts of weather conditions to the public. The most fragile part of this framework is in coastal and offshore areas because of its remoteness, as compared to land areas, the complex interactions among air, sea, and land, and the limited availability of dissemination facilities. The types of warnings and forecasts we do provide are on an areal or zonal basis and are directed to all segments of the public involved in activities in the coastal and offshore areas.

This type of service should be adequate for warning of severe weather and ocean conditions and substantially reduce the risks of catastrophic losses such as those associated with the capsizing of the Ocean Ranger. In addition to the NWS responsibilities, we realize that individual, tailored forecast services which are directed to a specific user group on offshore platforms would further minimize the risk and at the same time, contribute to increased efficiency of the specific activities. It is a policy to encourage and cooperate with private meteorological companies to provide this added specialized service. In the Gulf of Mexico, this type of cooperative effort is an effective way of minimizing the risk of injury and property damage to those people involved in offshore development.

The second point is the complexity of the many elements involved in providing our public warnings and forecasts for the marine area. This complexity involves the capability of: (1) having a staff of forecasters trained and proficient in understanding the behavior of both the ocean and atmosphere; (2) a facility which, using numerical models, can process in a timely manner, different types of observations and then provide prediction guidance information; and (3) an adequate observation network which can describe and quantify the present conditions of the weather and ocean as well as provide the necessary climatological information such as wind and wave statistics from which platform design criteria is derived. At present, the National Weather Service, has all three of these ingredients, however, they are available in much smaller numbers than for our responsibilities over land. It is only with the continuance of all of these elements that we can assure an adequate warning and forecast capability for those segments of our public along the coast and offshore.

This concludes my statement. If you have any questions, I will respond to them here or provide them for the record.

## SUMMARY OF HIGH SEAS FORECASTS ISSUED BY THE NATIONAL WEATHER SERVICE FORECAST OFFICE AT WASHINGTON, D.C.

Friday, February 12, 1982

7 p.m. Est: Developing storm will move northeast and intensify. Forecast lowest pressure 29.36 inches at 40N 62W at 14/1AM. Wind, 45-60 knots; seas, 20-30 feet.

Saturday, February 13, 1982

1 a.m. Est: Developing storm will move northeast and intensify. Forecast lowest pressure 28.94 inches at 41N 55W at 14/7AM. Wind, 45-60 knots; seas, 20-30 feet. 7 a.m. Est: Developing storm will move northeast and intensify. Forecast lowest

pressure 28.79 inches at 46N 53W at 14/1PM. Wind, 40-55 knots; seas, 15-25 feet.

1 p.m. Est: Storm will move northeast and intensify. Forecast lowest pressure

28.41 inches at 52N 49W at 14/7PM. Wind, 40-60 knots; seas, 15-25 feet.
7 p.m. Est: Dangerous storm will move northeast and slow down. Forecast lowest pressure 28.29 inches at 51N 48W at 15/1AM. Wind, 45-80 knots; seas, 20-35 feet.

## Sunday, February 14, 1982

1 a.m. Est: Dangerous storm will move northeast and slow down. Forecast lowest pressure 28.17 inches at 53N 46W at 15/7AM. Wind, 50-80 knots; seas, 20-35 feet.

7 a.m. Est: Dangerous storm will move northeast and slow down. Forecast lowest pressure 28.23 inches at 53N 42W at 15/1PM. Wind, 50-80 knots; seas, 20-35 feet.

1 p.m. Est: Intense and dangerous storm will move northeast and slow down. This is one of the most intense storms seen so far this season and should be avoided by all ships if possible. Forecast lowest pressure 28.50 inches at 56N 44W at 15/7PM. Wind, 60-80 knots; seas, 20-35 feet.

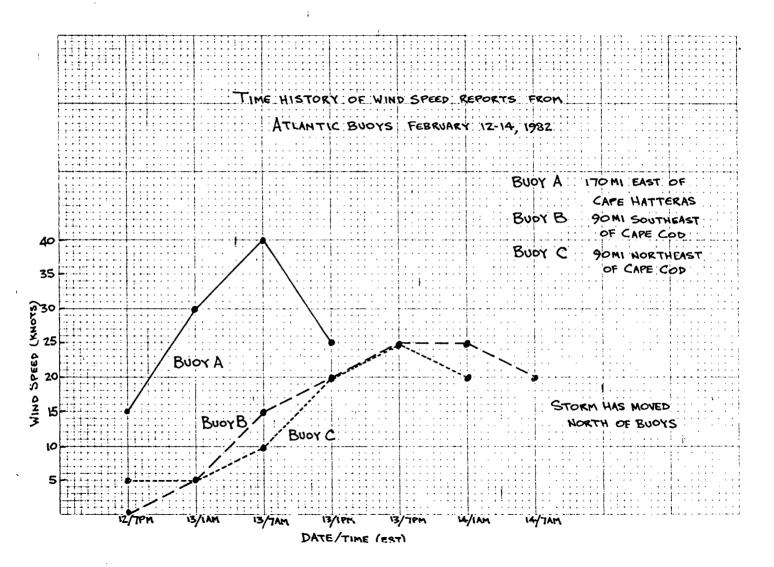
7 p.m. Est: Dangerous scorm will move northeast, slow down, and begin to fill. Forecast lowest pressure 28.23 inches at 55N 38W at 16/1AM. Wind, 50-80 knots;

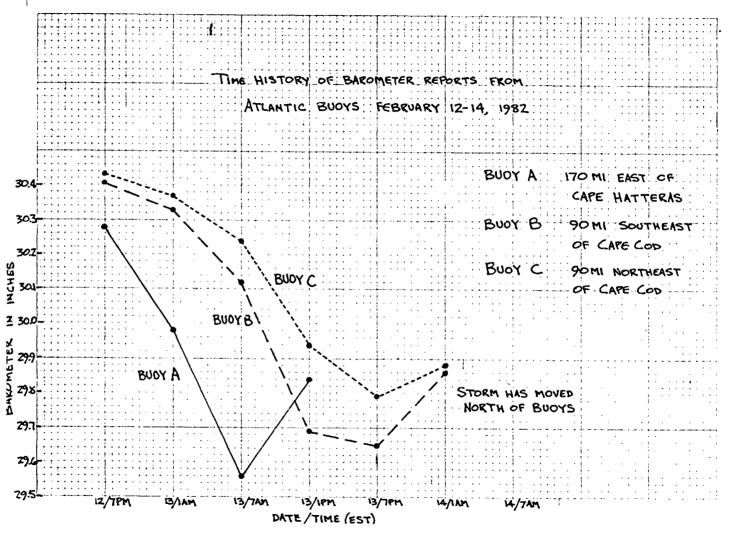
seas, 20-35 feet.

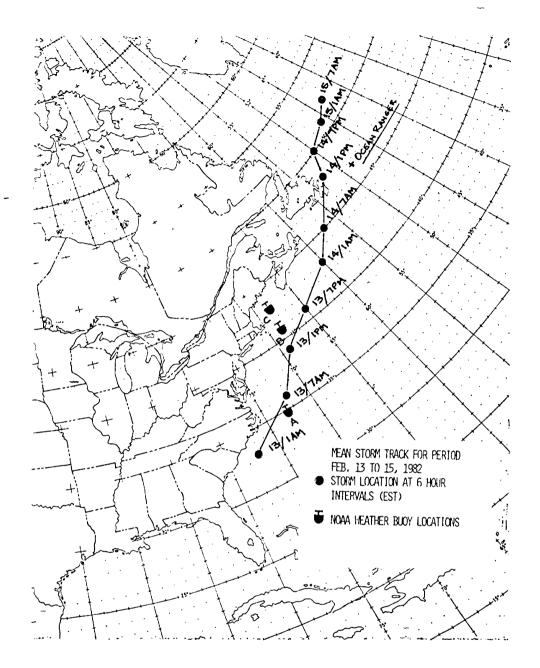
### Monday, February 15, 1982

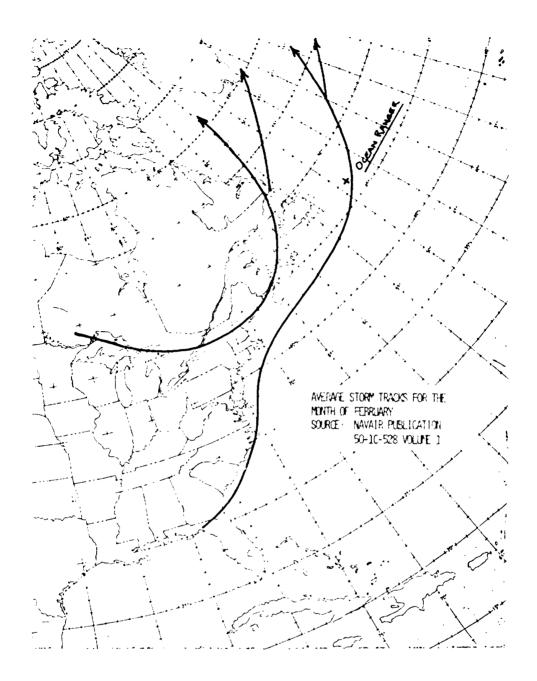
1 a.m. Est: Dangerous storm will move northeast, slow down, and begin to fill. Forecast lowest pressure 28.23 inches at 57N 40W at 16/7AM. Wind, 50-80 knots; seas, 20-35 feet.

7 a.m. Est: Dangerous storm will move northeast and turn northward. Forecast lowest pressure 28.35 inches at 58N 40W at 16/1PM. Wind, 55-80 knots; seas, 25-35.









Dr. Friday. As I am sure you are aware, the National Weather Service has as its primary mission to provide prediction of weather conditions for the public regardless of where they live or work, whether it be in the Nation's interior or along our coasts and offshore areas.

Our No. 1 priority of this service is to prepare and disseminate timely warnings of severe weather and ocean conditions so that evasive actions can be taken to reduce injury, loss of life, and damage to property. This is most important to those segments of the public who live and work where the ocean and atmosphere meet, perhaps more so than any other place.

I am sure that you have seen from the discussions this morning and this afternoon, the forces generated in the marine environment can be more significant and more destructive than any of

those known to man.

Furthermore, we have a difficulty in this particular task because we need to provide those warnings in sufficient time so that ade-

quate evasive actions can be taken.

The National Weather Service provides warnings and forecasts to the public for coastal waters up to 60 miles from shore, offshore areas out to about 250 miles, and by international agreement, certain areas of the high seas.

Nineteen of our Weather Service Forecast Offices along the coast have a marine warning and forecast responsibility. In addition, our National Meteorological Center located here in Washington, prepares guidance material depicting the present and future condi-

tions of the weather and oceans.

The 19 forecast offices use this guidance in preparing additional forecasts for distribution to our various users in the ocean area. In addition to the computer models from the National Meteorological Center they use observations from automatic weather stations, from cooperative observers along the coast, from the offshore platforms, from aboard cooperative ships and, of course, our environmental satellites, radar, and instrumented buoys. These services are disseminated primarily by radio communications. For our coastal and some offshore areas, this is accomplished by NOAA Weather Radio while for the offshore and the high seas areas the warnings and forecasts are broadcast by the Coast Guard, the U.S. Navy, and private radio companies.

In addition, selected forecasts are distributed to other nations, including Canada, for further dissemination. The National Weather Service also collaborates with the National Bureau of Standards to provide high seas information for broadcast over radio stations

used for time and frequency standards such as WWV.

As has already been discussed this morning, the Ocean Ranger site was located within the coastal and offshore area where warn-

ings and forecasts are routinely the responsibility of Canada.

Because of its location, we assumed that the Ocean Ranger utilized the warning forecast services as well as radio dissemination provided by Canada and, indeed, some of the people testifying this morning indicated the fact that they had received those forecasts from NORDCO.

Mr. Chairman, I have provided the committee with several charts attached to my written statement indicating the track of the

storm and the forecasts which were available as part of our high

seas warning responsibility.

I will not go into detail here but I can suffice to say that the storm was accurately forecast as was indicated earlier today by Mr. Sexton. This was a classic storm, it was not a freak occurrence. It was a standard storm tracking right along the expected climatological track. The winds and wave conditions were as to be expected from such a storm.

I would like to emphasize two points to the committee regarding the National Weather Service capabilities to provide adequate warnings and forecasts of marine and ocean conditions for those segments of the public involved in exploration and production of

energy from offshore platforms.

First of all, the National Weather Service has a basic framework to provide warnings and forecasts of weather conditions to the public. The most fragile part of this framework is in coastal and offshore areas because of the remoteness, as compared to land areas, the complex interactions between the air, sea and land, and the limited availability of dissemination facilities.

The types of warnings and forecasts we do provide cover wide areas or wide zones and are directed to the public at large and the

general users in the area.

This type of service should be adequate for warning of severe weather and ocean conditions and substantially reduce the risks of

catastrophic losses.

In addition to the NWS responsibilities, we realize that individual, tailored forecast services which are directed to a specific user group on offshore platforms should further minimize the risk and at the same time, contribute to increased efficiency of the specific activities.

In the particular case, here, I believe it was pointed out earlier today a private company in Canada did provide specialized environmental services to the Ocean Ranger.

In the Gulf of Mexico this type of cooperative effort is an effective way of minimizing the risk of injury and property damage to

those people involved in offshore development.

We have recently implemented a cooperative program with the offshore platforms there to collect weather data from the platforms to bring that into our ocean services unit at New Orleans and process that again for distribution to users in that particular area.

The second point I would like to make is the complexity of the many elements involved in providing our public warnings and fore-

casts for the marine area.

We essentially have three complex interactions here, or necessities for providing this complex data source. We have to have a staff of forecasters trained and proficient in understanding the behaviour of both the oceans and the atmosphere; we need a facility for doing this pulling things together in a timely manner, different types of information and then provide predictions; and we need an adequate observation network which can adequately describe and quantify the present conditions of the weather and ocean as well as provide the necessary climatological data base necessary from which platform design criteria may be derived.

At present, the National Weather Service, has the capability of all of these ingredients, however, they are available in much smaller numbers than for our responsibilities over land. It is only with the continuance of all of these elements that we can assure an adequate warning and forecast capability for those segments of our public along the coast and offshore areas.

Sir, that concludes my statement. If you have any questions, I

will respond to them here or provide them for the record.

Mr. Breaux [acting chairman]. The chairman has indicated that we proceed with questions if that is all right.

Mr. Jones. That is fine.

Mr. BREAUX. Thank you, Mr. Chairman.

Thank you for your presentation Mr. Friday. We have had a chance to review your summary of the high seas forecast and it indicates that NOAA weather first started describing this storm on Friday evening during the 7 p.m. forecast. The forecast indicated the presence of a developing storm that would move northeast and intensify. On Saturday, forecasts progressed from a developing storm that would intensify to a dangerous storm that would move northeast and slow down. Sunday the forecasts continue to refer to a dangerous storm at 1 a.m., 7 a.m., and 1 p.m., I believe intense and dangerous was the description. I quote from the forecast, "this is one of the most intense storms seen so far this season and should be avoided by all ships if possible." Forecasts continue to refer to the dangerous storm and, of course, the next morning was the time that the incident occurred.

Mr. Friday, is it within NOAA's weather capacity or jurisdiction to make any kind of a recommendation concerning the operation of semisubmersibles or fixed platforms? You do make a recommendation to ships that such a storm should be avoided at all costs.

Can that recommendation to ships in any way be correlated to a

recommendation to a vessel such as a semisubmersible vessel?

Dr. Friday. Historically, we provided this sort of information for ships at sea. The differences between the operation of a ship and an open sea and a semisubmersible of course—I cannot really draw a direct correlation between whether or not this should also apply to a semisubmersible. Perhaps Glen could answer something along that line.

Dr. FLITTNER. Congressman Breaux, in light of the earlier discussion, I believe you have got an equivalent question here of when a vessel is noving, that is underway, and when it is moored or anchored on station.

All of our forecast advisories are basically designed to meet the needs of mariners operating under way at sea.-I believe you have a special case here which doubtless warrants further examination.

Mr. Breaux. I understand that there are private weather consulting firms that some of the drilling companies use from time to time. What type of information do such firms provide that is beyond what the Weather Service is involved in?

Dr. Friday. Well, as I pointed out in my statement, what we do provide is a general context for an area; a general forecast of conditions to be expected, not an individual forecast for an individual point that may have peculiarities because of the individual climatic locations, individual current situation, individual terrain as in the

case of weather conditions on land. That sort of information then is provided either by the private meteorologist or the private environmental concern that has as a specific client, a certain location, knowing what those conditions are and knowing what is particularly sensitive and knowing what is particularly critical to his operation. That is about the transition point. We provide the general guidance material, the general warning for all segments of the public, industry, and society and the special products are tailored for use in this case.

Mr. Breaux. You indicate clearly in your testimony that NOAA weather was able to track this storm accurately, that the storm was not taking any surprising deviations and that it was on a traditional path for storms during that time of the year and in that

part of the world.

How important or useful are the moored environmental data buoys that NOAA owns, operates, and maintains in providing that type of service? I am concerned that any are scheduled for removal

because of budgetary recommendations.

Dr. Friday. The buoys are a very vital contribution to our data base at sea. As you know, we currently have approximately 14 of them in locations around the United States around the coastal areas. We are not the only source of those buoys, as you are well aware. There are also NDBO buoys operated for the Bureau of Land Management and other organizations. So, we have a coopera-

tive program.

We do plan on removing four of the buoys in the next year which are located in the major shipping lanes. The reason for that, essentially, is not only the operational cost of the buoys themselves, and one in particular which is some distance away from land, but also the fact that we do receive data from cooperative ships when they are passing in the area and, consequently, this buoy is an extra source of data and, under the present budget constraints, one which we feel we can get along without. However, I must point out that a continuous data record from a fixed point is superior to that provided by moving ships.

The buoys themselves give us, however, the most precise value of the detailed current, water temperature, wave phenomena, and

winds at the ocean surface.

Mr. Breaux. We understand that you are also in the process of implementing an ocean service unit in fiscal year 1982. In what year do you plan to complete this system of nine units and what kind of resources are required to complete that job?

Dr. FRIDAY. We have, as you are well aware, four units in at the present time, and we have five more units which we plan on putting in as soon as resources become available. Those are not sched-

uled to go in prior to fiscal year 1984, if then.

The total resources required to put those in, involves staffing the additional five units with sufficient personnel to do the ocean atmospheric interaction and it amounts to somewhere in the order of \$2.5 million total resources. As soon as those become available we will, indeed, expand our ocean services units to include that.

Mr. Breaux. Thank you, Dr. Friday. Thank you, gentlemen, I think you are all doing a excellent job at the National Weather

Service.

Mr. Jones. Mr. Carney?

Mr. CARNEY. Thank you, chairman.

Dr. Friday, does the National Weather Service have any procedures to follow up and check the accuracy of their reporting the

weather after a tragedy like this?

Dr. Friday. The verification of a weather forecast in this particular instance is not a precise task. In this case, because of the incident itself and the rapid collection of all of the various reports we have heard alluded to this morning we have been able to track the exact wind as you heard from various people testifying this morning and the exact wave structure as you also heard testified this morning.

So, in this particular case we have been able to verify the accuracy of this forecast very well. In many cases, when we forecast a storm at sea, unless we have an actual observation platform, a ship or something in the area, it is difficult to establish an exact verifi-

cation of how well that forecast performed.

Mr. CARNEY. In your statement, you did say that this forecast—

the predictions of the forecast were rather accurate?

Dr. Friday. That is correct. They are accurate from two bases; the track of the storm, first of all. There is no difficulty in tracking the direction in which the storm would move. Second, with the wind and the wave situation our wind forecasts were verified exactly with the reports that we heard from the platforms operating in the area, both the Ocean Ranger and the other two platforms described this morning.

The wave forecast that we provide is general ocean services function that we are talking about here. They are for open ocean. Now, this was operating on the Continental Shelf and consequently the wave heights would be expected to be somewhat higher which explains our forecast of 30- or 35-foot waves and the observations of 40-foot waves or, even in some cases the extreme wave height of 75 feet.

Mr. Carney. OK. So we did go back and we checked with other platforms and vessels in the area. Now, what I would like to find out is were there any unusual occurrences, such as a rogue wave, or something like that. Did you get any information of that type of unusual current? A high blast wind, a large wave in the timeframe that we feel the Ranger collapsed?

Dr. Friday. The indications that we have are that the sustained wind was on the order of 65 or 75 knots. There probably exists with sustained winds of that nature gusts, perhaps 10 knots higher than that, not a great deal higher. When you measure an ocean wave spectra you are measuring, essentially what is referred to as a significant wave height. That means, that a third of the waves are higher than that in actual height or magnitude. A wave distribution is a statistical phenomenon. There will exist an average wave height, but there will exist outriders on that that may be anything from zero to very high which might account—and one of the reports accounts for a wave as high as 75 feet which I have heard in some of the radio reports or some of the newspaper reports dealing with this. But, that would be an unusually high wave for a sustained or developed sea with a 40-foot significant wave height.

Mr. CARNEY. OK. What you are saying then is that there was an indication that you did have that unusual wave?

Dr. Friday. There was one report that I have read of a wave on

the order of 75 feet.

Dr. FLITTNER. The published reports that we have available to us are, again, heresay. It is our understanding that the Canadian Government authorities do have wave measurement data near the site of the incident and those data can be made available through the Canadian Department of Fisheries and Oceans.

Mr. Carney. Does that data show any unusual wave height? Sev-

enty-five foot wave heights?

Dr. FLITTNER. Again, only on brief discussion with the knowledgeable gentleman, yes, these statistics that Dr. Friday has provided to you are approximately correct.

Mr. CARNEY. And then, the timeliness of that wave that we are talking about, would that be in and around the area in the point of

time that the accident occurred?

Dr. Friday. As far as we know, that is correct.

Mr. Carney. I would like to get on to icing if we could? Have you any reports of unusually heavy icing on the rigs in that area at that time?

Dr. Friday. I heard testimony this morning to the fact that that was the case; there was a fair amount of icing buildup. We did have air temperature of below freezing. We had water temperature at 33 degrees. We did indicate light snow or moderate snow in the area so there was not only the ocean spray collecting on air temperatures, presumably superstructure temperatures below freezing so one would expect an accumulation of icing on the rig at that point. You also had some snow falling although we have no indication of amount or accumulation.

Mr. Carney. Is there any way that we could find out amounts, accumulations, weights of the ice that could have perhaps been on

that rig at the time of the disaster?

Dr. FRIDAY. I do not know, personally, of any way than the hearings going on at the present time in Canada with some of the data available there.

Mr. Carney. The other rig that was in the same approximate area, it was about nine nautical miles to the north if I am not mistaken—northeast—would the weather variation in a 9-mile area during that type of weather pattern, during that type of storm, be much different?

Dr. Friday. No, this was a large, well-organized storm and at those points very close together one would expect approximately the same conditions. That is the data source that Dr. Flittner was mentioning when he said we had detailed wave data from one of the other rigs located in the area so one would expect the same thing.

Bear in mind that this storm, if it originated in a tropical area with this same intensity would be labeled a hurricane; it had winds

that strong.

Mr. Carney. The point I am trying to bring out is if we could get an indication of how heavy the ice was on the other rigs, taking the weather reports that we have, we could assume that the same type of accumulation would have occurred on the Ocean Ranger. Is that correct?

Dr. Friday. I would assume so.

Mr. CARNEY. I have a little red light there so I will have to yield back to the Chair at this time.

Mr. Jones. Any further comments? Mr. Breaux?

Mr. Breaux. I would like to conclude, Mr. Chairman, with an expression of thanks to you for holding this hearing. I feel that it has been very helpful and that you correctly pointed out in your opening statement, and I also tried to reiterate the purpose of this hearing was certainly not to preempt the National Transportation Safety Board or the Coast Guard in their endeavors to determine the cause of the accident.

Furthermore, I feel that the testimony that we have received today has been very open and very candid, particularly the testimony from Mr. Kelly from ODECO who is so closely involved in this tragic event. I am sure that the committee appreciates that type of willingness to work with Congress to insure that laws are appropri-

ate in matters such as this.

The testimonies also indicated, at least to this member, that there are some flaws in the legislation; that there is certainly some confusion, Mr. Chairman, as to the role of the Coast Guard. I think that needs to be carefully addressed and that this year will give us an opportunity to produce some legislative recommendations which correct the type of problems we have seen today.

Thank you, Mr. Chairman. Mr. Jones. The Chair recognizes Mr. Carney to close out for the defense—I mean the majority. [Laughter.]

Mr. Carney. Thank you, Mr. Chairman.

I think I would like to echo the same sentiments of my colleague, Mr. Breaux.

We realize that certainly this is not the forum to try to make a determination as to the cause of this great tragedy but certainly, on the chairman's initiative, many important things have been pointed out to us, particularly within the agencies of our Government—the Coast Guards have been suffering from financial problems now and needing the help of the Congress, perhaps, to help them in that area, and NOAA, the National Weather Service, the type of weather service it provides.

We are going to have to look at it very carefully. It seems like catch-22. You have a stationary platform in the ocean. We can predict rather accurately that large weather problems are heading in that direction but what do you do? You cannot evacuate. You cannot move that vessel out of the way, like a normal vessel could

when you give them their warning.

I think we have to get into an enormous amount of research and development to find safer ways to protect the men and women who work those rigs providing us with energy independence and I commend you, Mr. Chairman, for having these hearings in such a timely fashion.

Mr. Jones. Thank you, Mr. Carney.

Dr. Friday, it is nice having you and your colleague here with you this afternoon. We have a Dr. Friday in North Carolina—Dr. Bill Friday, who is president of the University of North Carolina which is now the No. 1-ranked basketball team. As an NC State man I do not know what possessed me to say that, but I did, with tongue in cheek.

Seriously, I want to thank all the witnesses here today and the members of the committee for being so patient. I am confident that out of this hearing will come something constructive such as changes in the present laws and regulations; or perhaps, a greater penalty for failure to have the vessel inspected. Regardless of what some may think, I do not think that these hearings today have been wasted time at all. I think it has been very productive, and with that, I ask your unanimous consent that any member be allowed to submit for the record, written questions for any of our witnesses. Without objection, so be it ordered.

Mr. Jones. With that, the committee stands adjourned.

[The following was received for the record:]

### Additional Questions of the Committee and Answered by ODECO

(Due to the volume of the manual it has not been reprinted, but will be kept in the committee's file; and is available to the public)

### 1. QUESTION:

Will you please submit a copy of the Coast Guard approved operating manual for the Ocean Ranger?  $\,$ 

### ANSWER:

Yes, copy enclosed herewith.

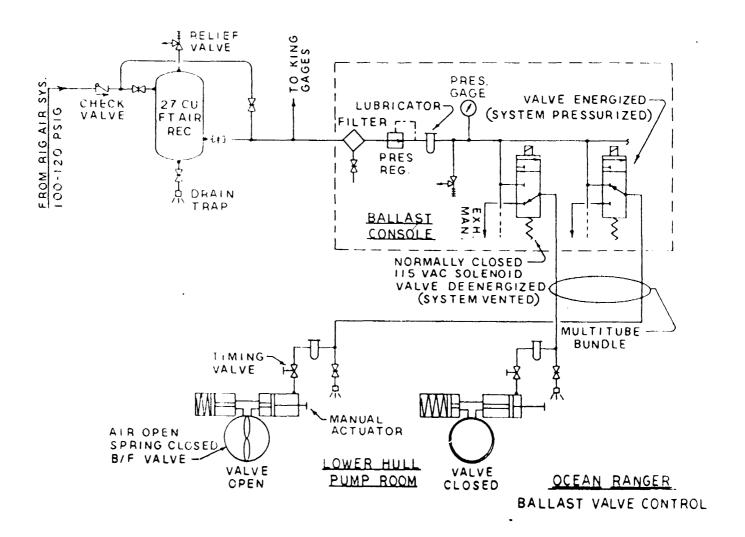
Mr. Kelly, you stated that each of the 32 ballast compartments is separated by an air-operated activator on each butterfly valve. How does this system work? When power or air pressure is lost are the valves designed to automatically close?

### ANSWER:

The ballast tank remote operated valves operate as shown in the attached diagramatic entitled OCEAN RANGER BALLAST VALVE CONTROL.

Air from the rig service compressors is fed to a volume tank dedicated to ballast control. (as a back up to this volume tank other air sources on the rig can be connected including a small diesel driven air compressor.) An electrical push button switch energizes a relay which in turn energizes a normally closed 115 volt AC solenoid. (Both legs of this circuit are fused for overload protection. Electrical power for stbd. and port are separate and each have a circuit breaker with switch on the ballast control console labeled source.) The solenoid operates an air valve which is normally vented. When activated by the solenoid, air is directed via a single tube to a pressure opened spring closed actuator fixed to each ballast tank valve and certain other valves located in the pontoons. (Actuators have a manual screw which can open the valves or the actuator can be be removed and valves manually actuated.)

The system is designed for all valves to fail closed by either turning off AC power or bleeding off air pressure. The valves are regularly cycled to test for correct time of opening and closing.



You stated there are failsafe systems to prevent the ballast tanks from flooding. Will you name and briefly describe all the manual and automated failsafe systems which could have been used to stop accidental flooding due to a short-circuit in the control room panel?

### ANSWER:

If an assumption is made that electrical faults occurred in the ballast control console the first action would be to remove power from the ballast control console. This may be done by pushing the circuit breaker labeled "Source" on the vertical face of the console at the extreme Pt. and Stbd. middle of the console (see photo attached). Should for any reason either of these two circuit breakers not be useable, the circuit breaker for the feeder line to the ballast control console is located in the Machinery House Minor Power Panel and is labeled Ballast Control Console. In the absence of electrical power to the board, the valves would automatically close.

With electrical power off at the ballast control console, ballast valves may be opened by removing the lower console verticle panels (see photo with one removed), inserting a brass rod into the solenoid and screwing the brass rod down to open the air valve. A box is provided inside the console for storing the rods. The individual valves and solenoids are labeled.

Removal of air actuating pressure could have been done from inside the console or from outside the ballast control room by bleeding down the air receiver tank shown in diagramatic attached to question 2. With no air pressure, the ballast valves would close.

The above measures may be taken from the ballast control room or nearby in the upper hull. If it is felt a problem still exists the manual sea chest valves may be closed and no further water can enter the hull from outside. This valve is easily accessible in the lower pump room.

Control room operators are instructed to operate all valves each 24 hour period as called for in the operating booklet, Page K2-3. This operates each valve in the lower pump room. Should any valve not function normally it is to be brought to the attention of the Master and is promptly repaired by the rig mechanic or electrician as is appropriate. The Master is likewise responsible for periodically checking the operation of these systems. He is licensed by the USCG.

What make and model of covered lifeboats were on the Ocean Ranger? Please submit a photograph or diagram which shows the covered lifeboats and the way in which the crew would board the craft with a brief explanation of the evacuation procedure and launching procedure involved.

### ANSWER:

WC 5800 (Watercraft) Photograph Attached 26' MC/Tank Vessel (Harding) (2) (Descriptive data attached)

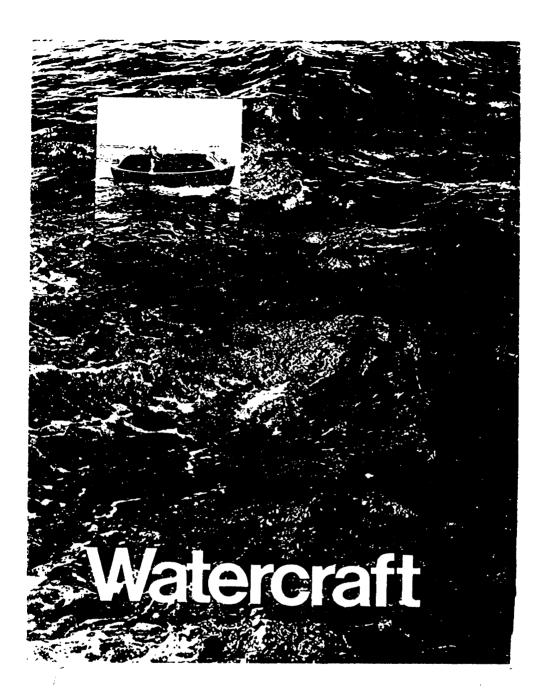
The employees are trained and drilled once a week to don their life jackets and to proceed to their assigned lifeboat. They board the lifeboat, take their seats, and fasten the life belts. The last man to board closes the hatches. A designated person operates the engine and controls.

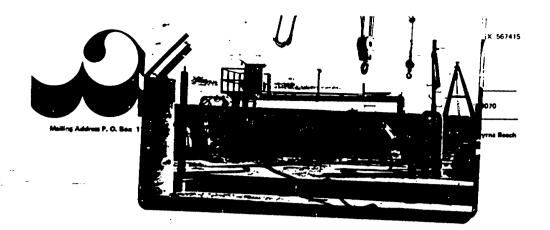
During drills, the lifeboat launching systems is operated ordinarily by the rig mechanic or barge engineer, or a person designated on the station bill. Weather and sea conditions permitting, the lifeboats were to be lowered into the water. During actual emergencies the launching system can be activated from within the lifeboat. It lowers the lifeboat at a rate of 2 feet per second.

The Ranger had aboard a 23 minute instructional video cassette tape on the Watercraft and a 15 minute cassette on the Sea Jay Elliott Inflatable Lifecraft. The Harding boats are similar to the Watercraft and differences were discussed in Safety meetings and critiques of abandon drills.

The drills and training are in accordance with Title 46 of the Code of Federal Regulations, Subchapter 1-A-Mobil Offshore Drilling Units, Part 109, Subpart B.

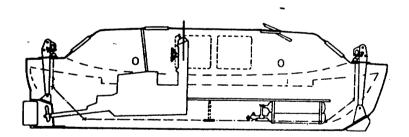
Section 8 of the Ocean Ranger Emergency Procedures Manual (copy attached) describes procedures to be followed in lifeboat drills and in the event of platform abandonment.

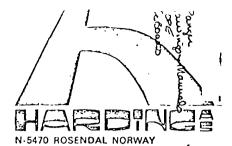




### OPERATING INSTRUCTIONS

WATERCRAFT TOTALLY ENCLOSED MOTOR LIFEBOAT WITH WATERSPRAY





### lifeboat certificate

Type of boat

26' MC./tank vessel, Offshore Drilling Rig.

Boat no.

2978

Manufaktured, year

1974

Main dimensions

8,00 x 3,00 x:1,20 m. - 20 cubic mtr.

Cubic feet

706 (Sterling)

Capacity

50 persons

Marks

Ordinary

Marks placed

utside at the salu

Boat made of

G. R. P.

Number of buoyancy tanks 2 - filled with polyurethanfoam

Buoyancy tanks capacity

.4.550 liters.

Buoyancy tanks made of

G. R. P.

Type of engine

SABB diesel - type 2GRG. - 22 HP. - watercooled no. 74.68 - Screw 18x15 - Sprinklerpump type: FRAMO approved by Den Norske Skipskontroll.

This boat is build to plans approved by Den Norske Skipskontroll,

and under said Institution's

survey and test



Olae, den

28/8.74

amibliand.

H. Bary

Surveyor

Reinshored Trytheri, Rosendal

710-04 (13)

# WEEKLY MAINENENGER

 Check pressure on airflasks by opening stop valves (11). Adjust regulating valves (16) until manometers show about 10 kp/cm.<sup>2</sup>
 NB: Air pressure on flasks shown on manometer shall be at least 150 kp/cm<sup>2</sup> and max. 200 kp/cm?<sup>2</sup> 2. Airflasks to be refilled by using a transportable high-pressure air compressor. Disconnect air distribution pipe and connect air supply hose directly on each flask. Open valve (11) and fill air until manometers (16) show 200 kp/cm².

After flasks are properly filled, air supply valve (16) to be closed and air distribution pipe to be connected.

After air check, valves (16) on the flasks to be closed. Valves (15) and (11) to be opened until manometers (13) (13) show zero (0 kp/cm²).
 NB: See that both valves (15) and (14) are closed.

4. Ensure that valve (17) is closed when sprinkler pump is not used.

Check that all equipment shown in the inventory list is in good condition.

Lubricate release hooks and wires.
 Lubricate cables, blocks and hinges.

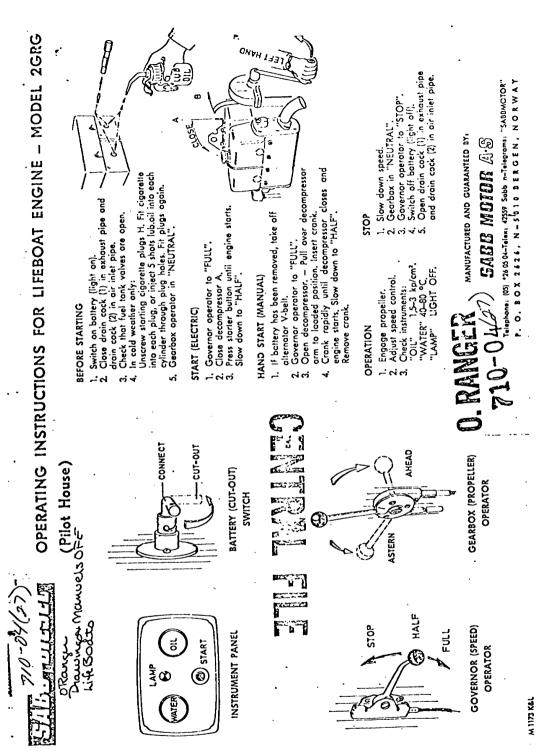
Check sprinkler system, and lubricate sprinklerpump. Dress all seals.

10. Check hatch sealing condition.

11. Check for grease in greaser (5).

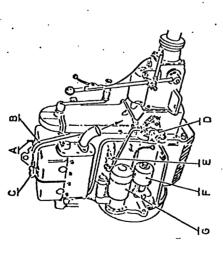
 Rémove cover on aft peak tank and check rudder connections. Lubricate wires and ruddershaft.

## O. RANGER



# OPERATING INSTRUCTIONS FOR LIFEBOAT ENGINE - MODEL 2GRG

### (Engine Case)



Decompressor arm Woter cap

Lub.oil filter

Decompressor

Water foump/valve drain. Water drain cock

Cigarette plugs Air intake

Hand start crank

Sump oil filler plug (dipstick) Alternator Fuel filter

O Georbox oil filler plug (dipstick) N Fuel lift pump

# ENGINE MAINTENANCE

 Drain water condensate from fuel tank.
 Top up tanks with fuel (gas oil, light diesel).
 See that fuel tank valves are open. WEEKLY (AND AFTER LIFEDOAT DRILL)

2. Check lub.oil level. Dipslick L.

3. Check cooling water. Cap C. NB.I Antifreeze, Instruction Book, page 16. Check battery electrolyte level. 5. Grease propeller bearing and stuffing box. One turn each,

Top up with dostilled water,

6. Start engine. Run idle for 5-10 minutes. Stop.

7. Unscrew cigarette plugs H. Inject 5 shots lub.oil into each cyinder to preserve and facilitate next starting. Crank engine 3 turns by hand. Close decompressor A.

Check bottery voltage. IMPORTANT: Before charging battery from ex-ternal charger, both bottery cables must be disconnected from battery.

9. Open drain cock (1) in exhaust pipe and drain cock (2) in air inlet pipe

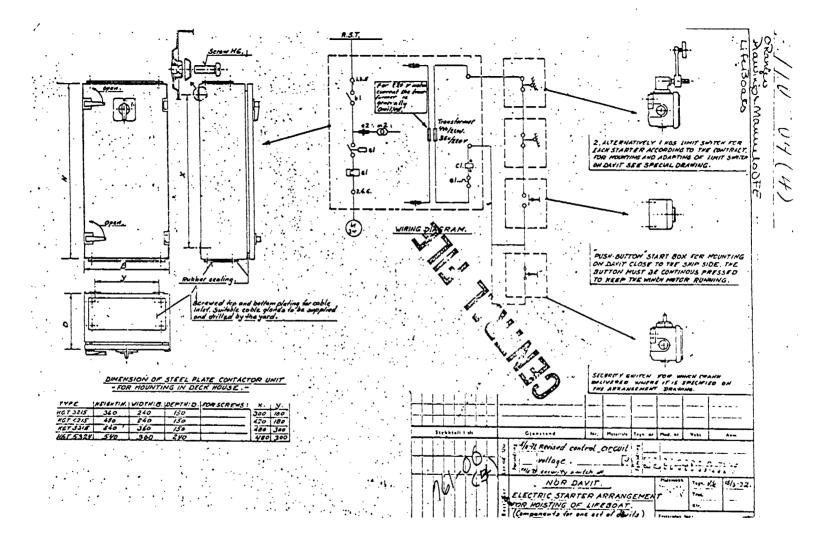
YEARLY

150 and 600 hours servicing charts. Follow Instruction Book:

MANUFACTURED AND GUARANTEED BY: Sable Refer a.S

P. O. BOX 2626, N-5010 BERGEN, NORWAY Telephone: (05) \*26 05 04-Tejox: 42559 Sabb n-Talagrams: "SABBMOTOR"





### SECTION 8 ABANDON PLATFORM:

- Alarm indicating a possible Abandon Platform situation is given 8.7.1 by continuous sounding of the General Alarm. Locations of General? Alarm Button are indicated on the Fire Appliance Plan located in the Main Accommodation Passageway.
- 8.2 ABANDON PLATFORM DRILLS
- Abandon Platform drill shall be conducted not less than once a 8.2.1
- week.
  8.2.2 All personnel are to respond to Abandon Platform Drills.
- The Station Bill indicates where each man shall go and the duties 8.2.3 he shall perform. Life Jackets shall be put on.
- The Stand-by boat shall be advised and will proceed to the immediate 8.2.4 vicinity of the rig prepared to give assistance. ~
- At each drill, one survival craft will be prepared for lowering, the engine started and all systems checked. 8.2.5
- 8.2.6 - At each-drill the portable distress transmitter is to be tested ..... and personnel to be instructed in its use . ===
- 8.2.7 Personnel are to be instructed in evacuation by helicopter-including the use of the helicopter winch hoist and harness.

- 8.3 : LIFE SAVING EQUIPMENT ....
- 8.3.1 Location of appliances is indicated on the Safety Plan.

- 8.3.2. All personnel will familiarize themselves with the location and operation of Life Saving Equipment.
- 8.3.3 Barge Captain will ensure that personnel in charge of Survival Craft, Rescue Craft and Liferafts are familiar with the operations of the equipment.
- 8.3.4 Survival Craft will be lowered in davits and recovered during suitable weather and all systems checked for correct operation at least once in every eight week period. Such checks shall be recorded in the Ocean Ranger's Log Book.

- 8.3.5 Access to all Life Saving Equipment shall be kept clear of obstructions at all times.
- 8.3.6 The Barge Captain will ensure that all personnel lifesaving equipment, lifebelts, flares, rockets and other equipment are in their allocated place and in good condition, within date limits where applicable, at least every eight weeks. Such inspections shall be recorded in Ocean Ranger's Log Book.
- 8.4 ACTION IN EVENT OF PLATFORM ABANDONMENT.
- 8.4.1 The decision to prepare for platform abandonment shall be made by the Odeco's Toolpusher.
- 8.4.2 The Abandon Platform Alarm shall be sounded by Odeco's Toolpusher or by a person directly instructed be the Manager to sound the
- 8.4.3 All persons will assemble with their life jackets on at appointed stations. Warmest possible clothing should be worn.

  8.4.4 The Radio Operator will advise Stand-by Boat and the Air Sea Rescue Services, and such other services as designated in Covernmental or Operator instructions, of the possibility of Plat-form Abandonment, giving Name of Installation, Position, Weather conditions, and reason for planned abandonment.
- Matter Manth \* 8.4.5 . Odeco's Toolpusher will-decide if complete, or partial evacuation. leaving skeletch trew, is to be carried out and will-advice all assesparties wim the public address system.
  - 8.4.6 % In the event complete abandonment Assistant: Toolpusher will --ensure what whe well his secured are Rig Mechanic will ensure what him .all main-power-plants.are.ahut.down-and.emergency.systems.are -functioning on the batteries. -Rig Electrician will assist Rig Mechanic, and will ensure obstruction lights are functioning... correctly .- Control Room Operator will ensure all ballast and . -sea inlet valves are closed; he will also ensure all W.T. adoors ..... are closed.
- 8.4.7 Radio Operator, in the event of complete abandonment will transmit May Day signal and before leaving his post will activiate the emergency automatic distress signal transmitter: He will carry the Portable Distress Transmitter with him to his survival craft.

- Survival Craft will not be lowered to water until all personnel 8.4.8
- scheduled for that Craft have been accounted for by Person in Charge.

  After evacuation of the rig, survival craft should be driven clear of any hazard and preferably proceed to the Stand-by Boat, or, if 8.4.9 this is not possible due to prevailing conditions, attempt to remain grouped together as near the location as possible.

  If for some reason, a survival craft cannot be used, recourse must
- 8.4.10 be made to the inflatable liferafts. All personnel having to leave the rig should ensure that a liferaft is available in the water, inflated, for them to reach and board.
- 8.4.11 In the event of evacuation of part of the crew by inflatable liferaft, the other survival craft shall endeavour to collect the inflatable craft and pick up survivors in water wherever they do not risk placing themselves into a dangerous situation.
- 8.4.12 Stand-by Boat will endeavour to recover survivors and will keep shore based authorities and other-vessels in area advised of situations, and will call for assistance as necessary.

Why do some of your vessels have life capsules and others have covered lifeboats? How is this decision made?

### ANSWER:

The decision on utilization of lifeboats or capsules is sometimes mandated by the space available for installation. Capsules generally take up less deck space. Since the loss of the Ocean Express in April, 1976 the Company has utilized the covered lifeboats in instances where other factors did not dictate the use of capsules.

Did the Coast Guard ever require you to have 200% of the manning level for lifeboats on the Ocean Ranger? If so, when were you notified? How long were you given to comply? What was the percentage of lifeboat manning capability on the Ocean Ranger at the time it sank?

### ANSWER:

At the time of issuance of the U.S. Coast Guard Certificate of Inspection in December, 1979, the Ocean Ranger was approved for U.S. Flag with the lifesaving equipment then on board which included 100% lifeboat capacity and 200% inflatable liferaft capacity.

By letter dated 18 December, 1979 the Coast Guard advised that prior to the issuance of the next Certificate of Inspecton, the Company must "comply with 46 CFR 108.506 davit launched liferafts or acceptable substitute". There was never a requirement that the Ocean Ranger have 200% lifeboat capacity even though Odeco chose to and was in the process of providing same.

At the time of the sinking of the Ocean Ranger, in addition to the inflatable liferafts on board, there were two (2) 50 man lifeboats and one (1) 58 man lifeboat installed (194% of the people on board the rig). The remaining 58 man lifeboat was on deck but had not yet been mounted in the davits because weather conditions had precluded lowering the lifeboat into the water, a procedure required for final installation.

We understand you are in the process of designing and building the Ocean Ranger II and Ocean Ranger III. In light of this accident, what modifications are you going to make?

### ANSWER:

The Ocean Ranger was designed in 1973. The construction contract was signed 15th. November, 1973 and the rig started operations in July 1976.

The design of the Sumitomo Hull 1103, named the Ocean Odyssey, which you refer to as Ocean Ranger II was based on a design which was developed in 1977 jointly by Odeco and Mitsubishi Heavy Industries but substantially modified by Odeco. The design, completed in 1980, is smaller than the Ocean Ranger dimensionally and in steel weight but has a greater total displacement than the Ocean Ranger.

The Scott-Lithgow Hull 2002 which you refer to as the Ocean Ranger III is a totally different design, larger than the Ocean Odyssey and includes dynamic positioning capability and other features not found on the Ocean Ranger.

As a result of the Ocean Ranger accident, Odeco has changed only one area of the rigs under construction at this point in time. The ballast control room has been moved from the top level of the forward stbd. column to be a part of the pilot house complex at the upper level of the quarters. This will move the control room a few feet higher from wave action. This action is taken with some compromise as control room operators will be unable to sight work boats as they load or off load, visually watch overboard discharge of ballast pumps, sight under rig pollutions should a spill occur, and visually monitor the marine riser, guide lines, droop hoses, BOP control hoses, etc. which could be accomplished from the column located ballast control room.

When the investigations presently underway by U.S. and Canadian governmental agencies are concluded, the results may prompt further modifications.

Is the Ocean Ranger going to be raised? When will this decision be made? By whom?

### ANSWER:

Canadian authorities have ordered that all parties and mariners, including Odeco, are to stay a minimum of 1/2 mile away from the Ocean Ranger.

The same authorities, however, are planning diving inspections of the sunken rig after which decisions will likely be made concerning its disposition.

### 9. QUESTION:

How are employees and rig personnel notified and informed about marine safety and evacuation procedures? Are manuals readily available for all personnel?

### ANSWER:

See answer to Question #4. In addition, all ODECO rigs carry a trained Industrial Relations Representative or safety engineer who is also trained in emergency first aid procedures. His main duty on board is to ensure that at all times safe working conditions and practices are followed in all facets of the day to day operation of the vessel.

The IRR is also required to conduct at least one safety meeting every week. Weekly fire and abandon drills are held. A common safety meeting topic is a critique of the most recent drills.

Safety manuals and training films are readily available to all personnel.

What are the safety qualifications required for the various types of personnel employed on a drilling unit? What safety training do these personnel receive? How often does each person actually operate fire and other emergency equipment such as lifeboats?

### ANSWER:

Every toolpusher, driller, derrickman, and floorhand is required to have well control training, which, on all levels, emphasizes vigilance, early detection, prompt and proper containment of all potentially dangerous well kicks.

The company encourages all roustabouts, floorhands, derrickmen, and drillers to participate in its employee development program. There are three advancement levels in all job categories so that a roustabout, for example, by completing the training, can become promotable to the next job level. This program emphasizes safety in its content and administration; before the promotion and certificate of achievement is granted, the IRR must certify that he has personally observed the employee demostrating safe attitudes, habits, and practices on the job, and the line supervisor must certify that the employee understands and can perform the tasks required for the job. In addition, see the information provided in question 4 above.

Safety training for roustabouts includes: Firefighting stations and responsibilities, emergency evacuation procedures, use of personal protective equipment, basic firefighting, safe lifting, safe crane operatons in handling cargo and personnel, safe handling and storage of flammables and combustibles, maintenance of firefighting equipment, and emergency crane signals.

Safety training for floorhands includes: Firefighting, rig evacuation procedures, emergency shutdown procedures, safe use of drill pipe tongs, well control, first-aid, and safety inspections of the drill floor and equipment.

### 10. Continued

Safety training for derrickmen includes: Accident prevention in the derrick, on the derrick floor, and with auxiliary equipment, safe drilling operations, well control, and safe rigging procedures.

Drillers are trained in well control, safe drilling procedures, and firefighting.

Crane Operators are required to be trained according API RP 2D: "API Recommended Practice for Operation and Maintenance of Offshore Cranes".

Industrial Relations Representatives assigned to each rig (one aboard at all times) are responsible for safety instruction and training of rig personnel. The IRR conducts and records safety inspections and provides instruction in first-aid and safe practices, provides training materials for on-the job study programs including manuals and video tapes, and coordinates verification of course completions.

The IRR qualifications include successful completion of five weeks of classroom and four weeks of on-the-job training prior to assignment aboard a rig as an IRR trainee. Following completion of a minimum of six months of rig experience as a trainee, and subject to demonstrating ability to perform the IRR functions, the individual is promoted to the position of Industrial Relations Representative. During the prescribed training program, the individual receives training in First Aid, including C.P.R., the use of Lyport and other life-saving equipment, handling of various types of trauma, and proper use of life-saving equipment aboard the rig.

What training does the individual who mans the ballast control console receive? Is it classroom training or on-the-job? What latitude does this individual have in controlling the stability of the vessel when not under direct supervision of the master? Is he trained to compensate in the stability calculations for accumulated ice and snow?

Please submit a copy of your training manual for this individual.

### ANSWER:

The training of the ballast control room operator is primarily on the job training by the senior control room operator and barge master. The new operator understudies the operator and gradually assumes responsibility for operational trimming of the rig as his knowledge and expertise increases with experience. A copy of the stability and operations manual is kept in the control room, which contains instructions for calculating the stability of the rig plus detailed procedures for deballasting and ballasting the rig from working draft to transit draft and vice versa. During the deballasting/ballasting to change draft substantially, the control room is under direct supervision of the master throughout the entire operation.

During normal operation of the rig the control room operator trims the rig as required to maintain draft and trim without supervision once the master and senior control room operator are confident in his ability and experience. Should any difficulty or problem arise during normal operation of the control room the ballast control panel is shut down and the master and senior control room operator are called.

It is the responsibility of the master and/or senior control room operator to compensate in the stability calculations for ice and snow.

There is no training manual specifically for the control room except for the copy of the operations manual which is continuously available in the control room.

Please submit a list of any modifications or additions of large equipment to the Ocean Ranger and the resulting increase in weight since it was built.

The ABS testified the Ocean Ranger had a live deckload of 4,000 L.T. Has this changed at all since the vessel was constructed? What was the live deckload when the Ocean Ranger was constructed?

After consideration for pipe and other equipment, what was the available live deckload at the time of the accident?

### ANSWER:

Weight additions to the Ocean Ranger since it was built consist of new anchor winches and controls less deletion of original winches and controls for a net increase of 374 L.T. This weight is accounted for in the operating booklet approved by the USCG 6th. January, 1981 and transmitted to you under question 1.

Two lifeboat platforms and two life boats were added for 30 L.T. plus a store fitted midship stdb. upper hull of about 5 L.T. which are the only additions made to the rig after approval of the operating booklet.

The "live deckload" of 4,000 L.T. was a total estimate of nonlightship items (i.e. deadweight) to be used in conjunction-with the lightship weight estimate at the time of the structural analysis to confirm adequacy of the structure. Such a number would therefore be considered satisfactory for structural purposes provided the actual "live deckload" plus any actual increase in the lightweight in the upper hull area over and above that estimate did not exceed the 4,000 L.T. used in the structural analysis. This weight, incidentally, includes bulk powdered materials (barite, bentonite or cement) carried in "pods" within the supporting intermediate columns and also includes the pipe carried on deck.

Approximate maximum live deckload allowable (depending upon distribution and position of center of gravity) was about 3252 L.T. at a maximum loadline draft of 80 feet.

Actual live deck load by morning report of 14 February, 1982 was stated to be 2464 LT. However, the drill string was later hung off in the well. Additionally, the mud riser was disconnected and the riser tensioner was released from the wellhead. These three items would reduce the live deck load to about 2282 LT.

A June 1978 Coast Guard Marine Board of Investigation report on the drowning of 13 crewmen on the ODECO drill rig the Ocean Express concludes:

"The owner, ODECO, INC., who had primary responsibility for the training of the crew and safety of other persons on the Ocean Express, such as subcontractors and visitors did not provide a sufficient level of training or indectrination." "Training and use of lifesaving appliances and equipment were inadequate. This resulted in the crew being unfamiliar with the operation of lifesaving equipment, emergency procedures, and a lack of knowledge as to the availability of certain emergency equipment within the capsule."

What have you done since this accident to correct these problems, and to insure that all individuals are adequately trained in emergency procedures and that the drills are properly followed?

### ANSWER:

Since the Ocean Express, and prior to the issuance of the report to which you refer, the Company has initiated a comprehensive Safety and Training Program which includes the IRR's described below and in answers 4 and 10 above. The Odeco program was the pioneer program in the industry and has been widely copied since it was instituted. The magnitude of our Company's commitment to this program is evidenced by the fact that the total cost for 1981 in this area exceeded \$3,200,000 and the budgeted expenditure for 1982 is approximately \$6,000,000.

An integral part of the Safety Program is the position of Industrial Relations Representative. One IRR is assigned to be aboard every rig at all times. The IRR trains rig employees in proper boarding procedures and launch and operational procedures of survival craft. He shows the location of emergency equipment and supplies within the capsule. He points out the location and demonstrates the proper use of lifesaving clothing and equipment.

The IRR meets all new arrivals to the rig. He explains the station bill to them, including fire alarms and abandon alarms, and explains the individual assignments during emergencies. He escorts these personnel to the lifeboats and explains proper boarding procedures, and points out the locations of emergency equipment and supplies.

Fire and abandon drills are conducted weekly and attendance is mandatory.

If the ballast tanks on the Ocean Ranger flooded completely, but the water-tight compartments were closed, could the Ocean Ranger float?

### ANSWER:

If all the ballast tanks on the Ocean Ranger were flooded and with other compartments remaining in their condition reported as existing on February 14, 1982, the unit would immerse to the openings in the forward chain lockers. These had no means of closure and would be assumed to fill. Under such progressive flooding, the unit could theoretically achieve substantial positive stability, but the vulnerability of forward end closures to wave action and the possibility of wave action eventually downflooding other openings, is high. Therefore we believe the unit would not continue to float indefinitely in this situation.

### Additional Questions of the Committee and Answered by American Bureau of Shipping

Question 1: Would you please explain what the Norwegian government is doing in an attempt to make their offshore drilling operations safer since the sinking of the semi-submersible platform the Alexander Kielland in 1980?

Answer:

Near the end of August 1980 as a consequence of a visit by ABS staff to the Norwegian Maritime Directorate (NMD), we were advised that NMD would require all existing mobile offshore drilling units working at that time in Norwegian waters or holding NMD certification to undergo an extensive nondestructive inspection of all critical joints. This inspection was required to be done as soon as possible and in calm waters in accordance with an approved proposal submitted by the Owners to the Classification Society and to the NMD. Those required inspections have, to the best of our knowledge, all been carried out. Additionally NMD required all units to be reinclined at the time of the survey. Subsequently, the Norwegian Maritime Directorate (NMD) has advised the Bureau that they (NMD) will require every new and existing unit wishing to enter Norwegian waters to have adequate structural redundancy. This advice was received from representatives of NMD in May 1981. At the present ABS is unaware of such requirement being contained in any published NMD regulation for certification of mobile drilling platforms. However, on the basis of the above mentioned discussion, ABS is now requiring the submittal of structural redundancy calculations in connection with ABS' review of a mobile offshore drilling unit (MODU) for NMD certification.

With regard to the NMD requirements for reserve buoyance for semi-submersible drilling units, a copy of the current NMD regulations (Section 6, Sub-Section 11) is attached.

§ 6 Stability FROM NAID REGS

- 11. Special Requirements for reserve buoyancy for semi-subersible drilling platforms.
  - 11.1. The drilling platforms is to be provided with means of buoyancy in the deck structure sufficient to remain afloat in a manner described in 11.2, after the loss of buoyancy equivalent to the volume of the whole or a major part of any one column. The loss of buoyancy is assumed to occur when the platform is at the maximum operating draught and with the maximum allowable KG. The buoyancy volume which shall be regarded as being lost will in each individual case be determined by the Maritime Directorate based on the structural design, internal watertight integrity, pipe systems and the significance thereof to the ability of the drilling platform to survive.
  - 11.2. After the loss of buoyancy as described under 11.1 the drilling platform shall satisfy the following criteria:
    - 11.2.1. Not taking any effect of wind and waves into account, the waterline in the final condition of equilibrium shall be at least 0.6 metres below the lower edge of any opening through which progressive flooding may take place. With the exception of remotely controlled watertight doors, all doors located lower down than 0.6 metres from said waterline shall be regarded as resulting in progressive flooding. Matches and doors (emergency exits) which are very rarely used may be given special consideration. Air pipes with automatic closing arrangement and side scuttles/windows of the non-opening type may be submerged.
    - 11.2.2. The angle of heel shall not exceed 35° in any direction.
    - 11.2.3. The GZ-curve in the damaged condition shall have a positive extent of at least 20° beyond equilibrium together with maximum GZ-value of at least 1.0 metres.
    - 11.2.4. Watertight integrity and strength of main structural members, watertight bulkheads and the deck structure are subject to special approval by the Maritime Directorate.

Question 2: What structural strength standards must a porthole glass and frame meet? Do you conduct tests on porthole glass strength?

Answer:

Our Rules as contained in paragraph 20.7 require that portlights to spaces below the freeboard deck or to spaces within enclosed superstructures are to be fitted with efficient inside deadlights arranged so that portlights can be effectively closed and secured watertight and they are to have strong frames (other than cast iron).

The portlights in the Ocean Ranger ballast pump room were built in accordance with the JIS Standard F2401-1968 and were fitted with toughened glass of JIS Standard F2410-1955. They were of the non-opening type and were fitted with a deadlight cover secured by four (4) dogs.

The JIS Standard requires tests to be conducted in order to determine that the porthole glass will withstand the impact of a steel ball of a specified weight dropped from a given distance which distance depends on the thickness of the glass. The inside deadlight permits the crew to make the closure watertight by securing the deadlight over the glass and the watertightness is not dependent on the glass portlight.

Question 3: The Ocean Ranger and the rigs in the area were icing heavily. If the Ocean Ranger was covered with 2 inches of ice, it has been estimated that it would add at least 500 tons to the vessel's weight. Recognizing it is dependent upon the vessels remaining "live deckload" constraints, how can ice affect the center of gravity and stability of a vessel like the Ocean Ranger?

Does this decrease the 18 degrees angle at which there is no way the rig can right itself?

Answer:

Assuming a maximum "live deckload", if the exposed horizontal topside areas of the Ocean Ranger were covered with 2 inches of ice, ABS' estimates indicate that about 232 L. tons of weight would be added to the unit.

If 500 L. tons of ice were added to the topsides of the Ocean Ranger, it would increase the unit's draft by approximately 33.75 inches and raise its center of gravity approximately 15 inches. When operating at the maximum draft of 80.0 feet the approximate effect of this increase in the vertical center of gravity would be to increase the unit's angle of equilibrium if there was a 100 knot wind force from approximately 9.50 to 10.90. The positive GM (metacentric height) with the foregoing mentioned conditions is approximately 5 ft.

We are not aware of "an 18 degree angle at which there is no way the rig can right itself".

Question 4: 13.3.2 in your rules requires that a valve must be able to be manually closed or automatically close in the event of a power failure. How difficult is it to reach and close the manual control valve of the Ocean Ranger in a flooding and listing situation?

Answer:

For the Ocean Ranger the control system for the ballast valves was arranged so that the valves would automatically close shut when actuating power was lost, therefore, manual control would not have been required. Manual control was provided, however, at the site of the valves which is in the pump rooms in the lower hulls. There was an elevator in each column which ran from the 96' level to the pump rooms. In addition a vertical access ladder was fitted in the elevator trunk for use if the elevator was not functioning.

Question 5: If the ballast tanks on the Ocean Ranger are flooded, but the upper portion of the structure is watertight, will the vessel remain afloat? Under what conditions?

Answer:

Assuming full operating and the given live deck loads in the 80' draft operating condition, there is 7500 L. tons capacity of unballasted, ballast tanks. If all ballast tanks were filled, the vessel would be afloat with the draft increased to approximately 131.9 ft. with the underside of the upper hull immersed 1.89 feet.

Assuming an even keel condition, at this draft there would be a freeboard of about 19.6' to the top of the column. With this draft, (131.9'), the top of the column would be submerged at a listing angle of 6.5° or more. Due to the lowering of the Center of Gravity by the additional ballast, a 100 kt wind would cause the unit to list less than 1.5 degrees.

Question 6: What services do you perform for Great Britain relating to monitoring of equipment placed on offshore rigs? What is their rational for this requirement?

Answer: For Great Britain when ABS is the Certifying Authority for issuance of the DEN Certificate of Fitness, per "Offshore Installations Guidance on Design and Construction" - Dept. of Energy, the following is specified:

# "1.5 Owner's responsibility

Responsibility for applying for a Certificate of Fitness for an offshore installation that is to be established or maintained in waters about the UK, and for ensuring the continued validity of that certificate, rests with the owners of the installation. Application should be made in the form specified in the Construction and Survey Regulations and may be addressed to any one of the six organisations listed in 1.2 above, at the owner's discretion.

The owner is responsible for providing, or causing to be provided, all technical information necessary to enable the certifying authority to make a comprehensive and independent assessment of the design; for providing continuous access and all facilities required by the certifying authority during construction; and for providing access and any specialist assistance required, and full access to logs and records, during subsequent surveys.

The owner has a statutory responsibility for the sound design, proper construction and effective maintenance of his installation, including adequate supervision and inspection necessary to achieve these ends, but a valid Certificate of Fitness is evidence that an independent and responsible organisation believes the owner to have honoured his statutory obligations.

Experience gained since the certification scheme began shows it is to the advantage of all concerned to appoint the certifying authority as early as possible. Sound procedures established during the early stages make for smooth running during subsequent overlapping stages of design and construction.

### 1.6 Responsibility of the Certifying Authority

The primary responsibility of the certifying authority is to be satisfied that the measures taken by the owner to comply with his statutory obligations are adequate and effective and, when so satisfied, to issue a Certificate of Fitness."

"Part II Section 8 of the "Offshore Installations Guidance on Design and Construction" SECTION 8 EQUIPMENT

#### Summary

This section applies to all fixed equipment installed or erected on an offshore installation, whether initially or at a subsequent date. Equipment is to be considered in respect of its relationship to the safety of the structure and the safety and health of those on board. General requirements are given relating to all such equipment, and specific functional requirements for ballasting, bilge pumping, dynamic positioning, mooring, elevating, ventilation, heating and cooling, lighting and emergency power supply. The requirements of Section 8 are supplemented by Part III and Part IV of this publication.

# 8.1 General requirements

#### 8.1.1 STANDARDS

All equipment (other than one-off items) whether installed initially or at a subsequent date should be manufactured to a relevant standard, code or specification and written confirmation of this together with appropriate test certificates should be obtained from the manufacturer. Detailed requirements for electrical equipment and for mechanical equipment are contained in Parts III and IV respectively. Further detailed guidance on equipment will be issued by the Department as necessary.

#### **8.1.2 SUITABILITY AND SAFETY IN OPERATION**

All equipment should be suitable for its intended purpose. Where relevant, equipment should be designed having regard to its intended use with or near other equipment and for its safe use under all known operating conditions, including overload if anticipated. Where relevant, equipment should have efficient control systems, guard, fences and shields.

# 8.1.3 LOCATION OF EQUIPMENT

Equipment should be located with safety in view: any equipment located in hazardous areas should be suitably protected for installation in such areas.

## 8.1.4 ACCESS TO EQUIPMENT

People should have safe means of access to and egress from places where they will live and work. If these places are potentially dangerous, suitable protection or working cabins should be provided.

### **8.1.5 INSTALLING OF EQUIPMENT**

#### 8.1.5.1 Individual items

It is essential that each item of equipment should be installed properly. Particular consideration should be given to the effectiveness of mountings for cranes, fixed lifting appliances and derricks (including any drilling derrick); to the safe fixing of air intakes and exhausts of engines and compressors; to the safe placing of equipment in relation to the electrical system; to the segregation of piping systems, particularly pressure systems; to the inclusion of master controls for stopping machinery, for shutting off fuel supplies and for closing combustion spaces.

Consideration should also be given to the safe installation of electrical apparatus and conductors including the supply system, plant, machines and fittings.

#### 8.1.5.2 Items taken together

The installation and disposition of each item of equipment should also be considered in relation to other items so as to reduce to a minimum any potential danger to the installation and the people thereon. The whole of the equipment should be safely designed, constructed and installed."

Question 7: When was the last time a surveyor conducted a thorough examination of the inside of the Ocean Ranger's ballast tanks? Do your rules specify how often a surveyor must examine these tanks?

Answer: The last ballast tank examinations by an ABS Surveyor were reported on 5 July 1979.

The 1980 MODU Rules Section 16 requires examination of ballast tanks on column stabilized drilling units at the time of the Special Periodical Survey of Hull. In addition approximately two (2) years after the Special Survey No. 2 (after approximately 10 years of age) and at each subsequent Special Survey lower hull ballast tanks (representative) should be examined.

<u>Question 8</u>: What manual and automated failsafe systems do you require on semisubmersible platforms such as the Ocean Ranger to prevent accidental flooding of ballast compartments?

<u>Answer:</u> The Rules require that the valves be capable of being operated manually or that the control system be designed so that the valves close automatically shut when actuating power is lost.

Question 9: Are there any rules which would prevent electrical equipment from being located near a structure, such as porthole, on a vessel like the Ocean Ranger?

Answer: 39.9.4 of the Rules for Building and Classing Steel Vessels requires certain electrical equipment housing to be watertight. Equipment however, located inside the house, near a porthole would not be considered to be exposed to the weather, seas, splashing or other severe moisture condition. We would expect the porthole to be closed and its metal deadlight cover to be secured when such conditions were experienced - on the Ocean Ranger the portlights in the column were of the non-opening permanently sealed type.

Additional Questions of the Committee and Answered by the U.S. Coast Guard Inspections

1. Question. Admiral Lusk, you stated that it was your personal view that the underwater inspections are not as good as drydock inspections. Why aren't they as good?

Answer. While the information gained from conducting an underwater examination can be very valuable in determining the condition of the underwater body of a vessel if done properly, it is still not as good as a drydock examination. In a drydock, a vessel can be more throughly examined. The inspector does not have to rely on divers as his eyes and ears. Major defects and damages can be found but the third dimension is lacking on the TV monitors the inspector is relying on during an underwater examination. This can result in defects such as deep cavitation and weld cracks being missed. In a drydock, there is no problem with visibility (water clarity during underwater exams) or examining all sea valves, stern tubes, tailshafts, or rudders which can present a problem during underwater examinations.

2. QUESTION. Is there any drydock in the U.S. large enough to inspect the Ocean Ranger? How many U.S. flag drilling platforms cannot fit into a U.S. drydock for inspection? What drydocks are there in the U.S. that can hold a semi-submersible platform?

ANSWER. Drydocks are constructed for "ship-shape" vessels as opposed to\_vessels as wide as semi-submersible Mobile Offshore Drilling Units (MODU's). As a result, there are no U.S. drydocks that are large (wide) enough to accommodate a MODU the size of the OCEAN RANGER. Eighteen of the 38 U.S. flag semi-submersible MODUs will not fit into any U.S. drydocks. There are four drydocks in the U.S. capable of accommodating a semi-submersible MODU. Of these four drydocks, three can accommodate a total of three of the 38 U.S. flag semi-submersible MODUs. The fourth drydock is capable of accommodating 20 of the 38 semi-submersible MODUs.

The above figures relate strictly to sizes of drydocks and MODUs. The main problems in drydocking MODUs involve (1) the time and expense of pulling a MODU off station; (2) the time and cost of transporting a MODU from station to drydock and back to station at less than 5 knots towing speed; (3) the lack of suitable drydock facilities and the scheduling of same; and (4) logistics problems in some cases of transferring a vessel the width and height of a MODU through bridges and channels to a drydock site.

3. QUESTION. Are there any regulations which would prevent electrical equipment from being located near a structure, such as a porthole, on a vessel like the Ocean Ranger?

ANSWER. No. 46 CFR 111.05-15(b) requires that all electrical equipment exposed to the weather or located in spaces where they would be exposed to seas, splashing or other severe moisture condition, be of the watertight type or be protected by means of watertight enclosures. An inside location near a porthole would not require watertight equipment.

The definition of watertight is found in 46 CFR 110.15-65(d). Watertight equipment means enclosed equipment so constructed that a stream of water from a hose (not less than one inch in diameter) under a head of about 35 feet from a distance of about 10 feet, and for a period of five minutes, can be sprayed on the apparatus without leakage. The hose nozzle should be adjusted to give a solid stream at the enclosure.

4. QUESTION. What manual and automated failsafe systems do you require on semi-submersible platforms such as the OCEAN RANGER to prevent accidental flooding of ballast compartments?

Do you require the company to periodically test these systems and run drills to insure that personnel are adequately trained in backup system operations? If not, why not?

ANSWER. (4.a.) No failsafe systems are required although an operating manual is required and must be approved by the Coast Guard. This manual contains information pertaining to the stability requirements, limitations of operation for each operating mode, and general guidance and precautions regarding unintentional flooding for each particular unit (46 CFR 109.121).

(4.b.) No periodic tests are required but the master or the person in charge is required to ensure that the provisions of the Certificate of Inspection are adhered to. The master or person in charge must also be fully cognizant of the provisions of the operating manual (46 CFR 109.109).

5. QUESTION. When was the last time an inspector conducted a thorough examination of the inside of the Ocean Ranger's ballast tanks? Do your regulations specify how often an inspector must examine these tanks?

ANSWER. (5.a.) The OCEAN RANGER was given an underwater examination in lieu of drydocking in April 1980. The ballast tanks would normally be included in this examination. However, the extent of the hull inspections of this unit is a matter being investigated by the Marine Board of Investigation and it's findings in this matter will be forwarded to you when they are available.

(5.b.) U.S. Coast Guard regulations do not specify how often the ballast tanks of a vessel similar to the OCEAN RANGER must be inspected. Coast Guard inspectors are not precluded from inspecting these tanks during routine inspection and for certain inspections as discussed in (5a) above.

6. QUESTION. Does 46 U.S.C. 391(b) require the Coast Guard to take the active step of inspecting a vessel like the Ocean Ranger at least once every two years? If not, why not?

Does a mid-term inspection under 46 CFR 107.269 fulfill this requirement?

ANSWER. Under 46 USC 391(b), the Coast Guard is required to inspect the hull of each steam vessel at least once every two years. However, "no vessel required to be inspected under the provisions of title 52 of the Revised Statutes shall be navigated without having on board an unexpired" certificate as set forth in 46 USC 399. The onus is on the <u>owner</u> to ensure that a vessel has a valid Certificate of Inspection as evidenced by the \$500.00 penalty for failure to do so (46 USC 497).

Due to budgetary and manpower constraints, mid-term inspections (reinspections) have been discontinued on Mobile Offshore Drilling Units (MODUs) as well as other vessels that are not required by law or treaty to have annual inspections. Although mid-period inspections on MODUs have been eliminated, MODUs operating on the U.S. Outer Continental Shelf (OCS) are required to have on-site annual inspections under the Outer Continental Shelf Lands Act Amendments of 1978. Therefore, MODUs operating outside the U.S. OCS, cargo vessels and certain other vessels will be inspected every two years instead of annually. In answer to your specific questions, mid-periods do not satisfy the requirement for a biennial inspection because a mid-period is more limited in scope than a biennial inspection. A mid-period is conducted approximately one year after the issuance of a two-year Certificate of Inspection (COI). Therefore, a full inspection must be conducted and a new COI issued every two years.

7. QUESTION. Do you have the authority to require a vessel owner, operator, or agent, to suspend all operations and proceed to a port for inspection if their Certificate of Inspection expires? If so, where is this authority granted?

Under what conditions should a penalty like this be imposed? Do you think it provides more of an incentive to maintain a current Certificate of Inspection than a \$500 fine?

ANSWER. Under 33 CFR 6.04-8, the Coast Guard Captain of the Port (COTP) may "take full or partial possession or control of any vessel or any part thereof within" the territorial waters of the U.S. under his jurisdiction.

This action may be taken whenever it appears to the COTP that it is necessary in order to prevent damage or injury "or to secure the obligations of the United States. On the U.S. Outer Continental Shelf (OCS), the Minerals

Management Service (formerly U.S. Geological Survey) may require suspension of drilling operations if there is a threat to life, property or the environment."

However, vessels working outside U.S. territorial waters and not on the U.S. OCS cannot be required to suspend operations or return to port when the Certificate of Inspection (COI) expires. The vessel is in violation of the law and the owners are subject to penalty as set forth in 46 USC 399 (\$500.00). Furthermore, Suspension and Revocation Proceedings can be initiated against personnel aboard the vessel who hold Coast Guard issued licenses/documents. There is an incentive for vessel owners to maintain a current COI on a vessel in that the owner could be liable for damages/injuries incurred while a vessel's COI is expired.

8. QUESTION. A 1981 Coast Guard Marine Board of Investigation concerning the Ranger I drilling rig accident concluded: "The casualty may have been prevented had the existing fatigue crack .... been detected while the unit was in drydock. However the commonly accepted method of visual examination was inadequate to detect the crack. Nondestructive testing, i.e. dye penetrant, ultrasonic or magnetic particle examination could have detected the fault."

Does the Coast Guard conduct periodic non-destructive tests on all high stress points on offshore platforms such as the Ocean Ranger? How often?

ANSWER. When drydock examinations are conducted on Mobile Offshore

Drilling Units (MODUs), non-destructive tests on high stress points are not required by law or regulation. However, Coast Guard marine inspectors may, as part of a routine drydock examination, require such tests to ensure the seaworthiness of a unit. For those MODUs undergoing special underwater examinations in lieu of drydocking, non-destructive tests of high stress points are required as set forth in Navigation and Vessel Inspection Circular No. 12-69. A copy of this circular is provided for the record.

9. QUESTION. There are areas of a drill rig - such as down in the legs - where it is very difficult for an inspector to accurately determine the condition of the pipes or electrical circuits. How then do you determine if they are in good condition?

ANSWER. Even though some areas are difficult for an inspector to visually examine, most can be. In those rare cases where the inspector can not visually examine the piping or electrical systems contained in a particular compartment, he can require an operational test to determine if these systems are operating properly.

### LIFESAVING

10. QUESTION. Recognizing that in order to save lives different lifesaving equipment is needed in the North Atlantic than in the Caribbean. Does the Coast Guard require different or specialized lifesaving equipment depending upon the environment in which the vessel will be working? If not, why not?

Do you have the authority to require specialized lifesaving equipment?

ANSWER. There are few differences in lifesaving requirements for vessels and rigs operating in different ocean areas. This is because in virtually any ocean area around the U.S., the weather and sea conditions can be extremely severe, and the water cold enough to kill. An unprotected person in the water in the northern reaches of the North Atlantic may have a survival time that will be in terms of minutes. In the Caribbean it may be in terms of hours, however, this still might not be sufficient time to complete a rescue. The secret to survival is to keep the survivors out of the water until rescue can be completed, and this applies to the Caribbean as well as the North Atlantic. For this reason the differences there have been for different geographic areas have tended to be in the areas of getting survival craft started and into the water. For example, lifeboats in cold weather areas are usually equipped with cold starting aids for lifeboat engines and consideration is given to launching equipment design and location to lessen the effects of icing.

The present statutory authority is adequate to allow specialized requirements where appropriate.  $\sim$ 

11. QUESTION. Does the Coast Guard require survival suits for all personnel onboard vessels in cold waters, such as the Ocean Ranger? Why not? How long can an individual survive in North Atlantic conditions, such as the Ocean Ranger experienced, wearing a survival suit?

ANSWER. The Coast Guard requires exposure suits (survival suits) only on Great Lakes vessels but there is growing appreciation of a need for such suits in other areas as well. Regulatory action relative to exposure suits on certain oceangoing vessels has been somewhat delayed to assure conformance with a new lifesaving chapter for Safety of Life at Sea now in its final stages of completion. This new chapter will contain requirements for these suits and, depending upon the progress of approval, could be in force as early as 1985. It is expected that by the end of 1982, the draft Convention language will be firm enough to proceed with a rulemaking project. Present plans are to consider the suits only for vessels with open lifeboats. This is because the open lifeboat is a very wet ride in moderate to heavy seas and the extra hypothermia protection is needed for those in the boat. The open boat is also more likely to swamp on launching than the totally enclosed boat. It was not anticipated that vessels and units with totally enclosed lifeboats would be included because when these boats are launched and operated as they are intended, the occupants stay out of the water inside the enclosure of the boat even if it capsizes. In light of the OCEAN RANGER casualty, this position will be re-evaluated .

As effective as the exposure suit is, it should not be regarded as the ultimate solution for hypothermia. It can only buy time. In casualties involving fishing vessels which now have a high rate of voluntary use of these suits, there have been many survivors that owe their lives to the suits, but there are still those that die in suits before they can be rescued. It can

only be speculated as to how many of the crew might have survived the OCEAN RANGER casualty if it had been equipped with exposure suits. It is necessary to get survivors into boats and rafts and keep them out of the water if it is going to be a matter of hours until cold water rescue can be completed.

The question on survival times can not be answered with great accuracy. When the suits are approved, human subjects in good physical condition wear them in calm freezing water for 6 hours. In this period of time, they enter the first stages of hypothermia. A reasonable guess is that they might survive 3 times as long, or 18 hours under these conditions. People that are smaller than the test subjects would not be expected to survive as long, and people that are larger would survive longer. These are laboratory conditions, however, and the real world is not as kind. Poor physical condition, injuries, health problems, and fatigue will all adversely affect survival time. As sea conditions worsen, survival time will also drop as waves washing over survivors force cold water into their suits as well as their mouths and noses, and fatigue increases as they struggle with the waves. Drowning is a threat since survivors must exercise breath control as waves periodically submerge them. This becomes more difficult with the onset of hypothermia. Add the element of darkness, and panic may become a serious factor. The question of survival time is therefore very complex. It can only be stated that under the conditions prevailing at the time of the OCEAN RANGER casualty, an unprotected person in the water with just a lifejacket would survive for only minutes. With an exposure suit, some would still have died quickly and others might have survived for a time that could be measured in hours.

12. QUESTION: In storm conditions such as those experienced by the Ocean Ranger, is it easier to launch a covered lifeboat or a capsule?

ANSWER. The totally enclosed (covered) lifeboat is considered to be fully equivalent to the survival capsule. This is especially true for the launching phase. The launching process for a totally enclosed boat is virtually the same as for a capsule. The capsule's operational advantages are in the water. It is more easily recovered after a drill since there is only one cable to hook up to instead of two. It can turn and change direction faster than a boat, and it is approximately equal in stability characteristics from all directions while a boat is more stable in the fore-and-aft direction than it is laterally. On the other hand, the boat is faster and more efficient in moving through the water.

13. QUESTION. When a vessel is listing to port and the lifeboats are on the bow and stern, is it easier to launch a covered lifeboat or a capsule?

ANSWER. SEE PRECEDING DISCUSSION

14. QUESTION. What is the best available lifeboat technology on the market?

In what sea states can a crew survive in this vessel? Can they be safely
launched in conditions the Ocean Ranger experienced? Is there any new
lifecraft and launching technology being developed to increase the chances of
surviving a mishap under these conditions?

ANSWER. The totally enclosed, self-righting lifeboats of the type on the OCEAN RANGER are the best lifesaving equipment available at present (survival capsules are considered to be totally enclosed lifeboats). They have been used successfully many times to escape from offshore drilling rigs.

There are no known sea state limitations on the structure of totally enclosed lifeboats. Therefore, persons inside the boat should be able to survive if they stay secured with their seat belts and don't allow water to accumulate inside by leaving the hatches open. Of course, in higher sea states, the ride in a small boat will be very uncomfortable. Seasickness and bruises can be expected, however, survival should be possible.

Although an inherently hazardous operation, it is believed that properly trained crews can launch and operate totally enclosed boats under severe conditions such as those experienced by the OCEAN RANGER.

One new development concerns the damaged stability of a capsized and flooded totally enclosed lifeboat. After the OCEAN EXPRESS accident in 1976, the Coast Guard representing the United States at IMCO, proposed that a new revision of the lifesaving requirements of the Convention for the Safety of Life at Sea (SOLAS) include a requirement that totally enclosed lifeboats must come to a position that affords an above-water escape for the occupants should the boat capsize in the flooded condition. This-proposal was accepted and

will be part of the new requirements. The Coast Guard will include this requirement as part of the revised lifeboat regulations that will be proposed to implement the new SOLAS requirements. This regulation project should begin in late 1982.

There is also a new Norwegian development for ships known as the free-fall lifeboat. This boat is dropped into the water instead of being lowered by a cable. The shape of the boat, its angle of entry into the water, and the special seating and restraints for the crew enable it to be successfully launched from heights up to 20 meters (66 ft.). Once in the water, this boat performs as a conventional totally enclosed lifeboat. Whether such a system could be adapted to a mobile offshore drilling unit, and whether or not it would increase the chances for survival are matters for conjecture.

15. QUESTION. Admiral Lusk, you said it was "theoretically" possible to lower a lifeboat in storm conditions like the Ocean Ranger experienced. Has the Coast Guard ever conducted a test to see if the average person could "practically" man and lower a lifeboat in these conditions?

ANSWER. There have been no test launches in storm conditions that we are aware of. There have been casualty cases in which these boats have been successfully launched, however. The OCEAN EXPRESS was one of them. In this case, two relatively inexperienced crews successfully launched survival capsules and got away from the sinking rig. It was about half an hour later that the partially swamped capsule capsized while attempting to transfer the persons inside to a tug. Apparently, at least one of the lifeboats on the OCEAN RANGER was launched as well since two persons were seen inside at one point. There is a tendancy to regard a successful launch as the end of the matter. If the waves are steep and higher than the length of the boat, there is a good chance that the boat will capsize. For this reason, these boats all have seat belts and the survivors should stay secured in their seats. Under these conditions the boat should right itself. However, if the crew is not secured to their seats, or if the hatches have been left open and the boat has become partially swamped, there will be a significant loss of stability and the boat may remain inverted if it capsizes. Lifeboats are expected to survive conditions that doom large vessels. A totally enclosed lifeboat can survive severe conditions successfully, but it does require knowledge and skill. If the "average" person is intended to mean someone who is untrained, it is too much to expect such a person to carry out an abandonment successfully. On the other hand, someone who has been trained and drilled properly should be able to launch the boat, ride out the storm with hatches closed and personnel secured to their seats, and direct a transfer to a rescue ship when conditions moderate.

16. QUESTION. Does 46 CFR 97.14, concerning persons in charge of lifeboats and certificated lifeboatmen, apply to semi-submersible drilling platforms?

If not, why not?

What performance standard does an individual need to become a certified lifeboatman?

Does the equipment he is tested and certified on have to be the type found on the vessel he will be operating on?

Can the lowering of a lifeboat from a platform be nore difficult than from a ship (i.e., you may not be able to lower it from the leeward side)? If so, are lifeboatmen on platforms required to be trained in lowering lifeboats from a platform?

ANSWER. The appropriate regulations for manning of primary lifesaving equipment found on semisubmersible drilling platforms are found in 46 CFR 109.323 and 109.325. The regulations require that the master or person in charge, assign to each lifeboat, a deck officer, able seaman or certificated lifeboatman to command the craft.

The performance standards for certification of all lifeboatman are found in 46 CFR 12.10. In essence applicants are required to show evidence of training and/or service, to pass a written or oral examination and prove by actual demonstration that they have skills to launch, operate and command a lifeboat.—The practical demonstration is conducted by use of a 1/4 scale

model, or by use of actual lifeboats depending on where the examination is conducted.

All primary lifesaving equipment on Coast Gaurd inspected vessels is built to a Coast Guard standard. With minor differences, the specific types of equipment would be the same wherever installed. For example a seaman may be tested on an open lifeboat and then find himself employed on board a vessel where the lifeboats are covered. The lifeboat davits might have some minor modifications e.g. the boat could be lowered without help from on deck, and the boat itself would be covered vice open. The differences would not be dramatic nor significant and are the types of things stressed and learned at the first fire and boat drill.

The actual physical lowering of a lifeboat from a drilling platform would in almost all cases be identical to the lowering of that same boat from a ship. Because drilling platforms are less subject to sea generated motions, it would under most circumstances be easier to lower a lifeboat from a platform than it would from a ship. There are no specific requirements in law or regualtions which dictate training in the lowering of lifeboats from platforms. The requirements are more general and look to the training or demonstration of seamanship principals and ability to lower a lifeboat per se, rather than to lower a lifeboat from a specific vessel. The specific training can best be met in regularly scheduled drills. The requirement for boat drills on platforms is found in 46 CFR 109.215. This requiation requires that, at least once a week, lifeboat drills be held, that personnel demonstrate the ability to perform their duties, and that weather permitting at least one lifeboat be partially lowered and its engine started and operated.

17. QUESTION. Reports have reached the Committee that on drill rigs, as contrasted to merchant ships, lifeboat and fire drills are seldom taken seriously or run correctly. As one former crewman of the Ocean Ranger has been quoted: "I never saw the inside of a lifeboat on the Ranger."

This raises questions concerning the effectiveness and enforcement of Coast Guard regulations which require a drill to be conducted every week and each boat lowered once a quarter. While we cannot determine the extent to which this is true, the fact remains that of the 3 lifeboats recovered from the Ocean Ranger, only 2 crewmen were recovered, from one of the boats.

What can be done to increase the effectiveness of emergency training of crews so they can safely evacuate a rig during an emergency?

#### SEE PRECEDING DISCUSSION

What degree of seamanship does it take to launch a lifecraft under these conditions? Are personnel adequately trained to board and launch a lifecraft under adverse conditions or just in fair weather?

ANSWER. The degree of seamanship required to launch lifeboats and liferafts varies from case to case. Personnel are normally trained in lifeboat launching procedures in fair weather. For obvious reasons, there have been no training launches in storm conditions that the Coast Guard is aware of. However, a trained crew can safely launch lifesaving equipment from a MODU under severe wind and sea conditions. During the 1976 OCEAN EXPRESS casualty, lifeboats were successfully launched under adverse weather conditions.

18. QUESTION. Does the Coast Guard require 200% of manning requirements for lifeboats on vessels like the Ocean Ranger? If so, was the Ocean Ranger ever notified by the Coast Guard that they had to increase their lifeboat capacity to this level? When were they notified? Please submit copy of notification for the record. What was the percentage lifeboat manning capability of the Ocean Ranger at the time it sank?

ANSWER. MODUS like the OCEAN RANGER are required to have lifeboats for 100% of the personnel allowed on board. In addition, they must provide additional lifeboats or inflatable liferafts for 100% of the personnel allowed. At the time of the casuality, the OCEAN RANGER had two 50-person Norwegian lifeboats and one 58-person U. S. lifeboat installed. Another 58-person U. S. lifeboat was aboard the unit but had not been installed. In addition there were ten 20-person inflatable liferafts on board. At the time the OCEAN RANGER sank, the capacity of the operational lifeboats was 158 persons or 158% of the allowed capacity. Total liferaft capacity was 200 persons. The combined installed lifeboat/liferaft capacity was 358% of the persons allowed.

GENERAL

19. QUESTION. Do you require that the inidividual who sits at the ballast control console be licensed or certified? If not, why not? If not, should they be licensed to insure they have adequate training relating to ship stability under all operational conditions, including emergency backup systems?

ANSWER. The ballast control console operator (barge engineer or watchstander) is not required to be licensed or certificated. This individual(s) has been perceived by the Coast Guard to fall within the broad general classification of "Industrial Person" ("Special Personnel" in international parlance), a term describing individuals who are neither passengers nor seamen in the accepted (traditional) meaning of the term. On rigs such as the OCFAN RANGER, this person performs under the supervision of a licensed master who does have knowledge of ship stability, etc., so little benefit is seen from requiring a license or certificate.

20. QUESTION. It was stated that the tool-pusher is in command of the semi-submersible mobile offshore drilling unit when it is anchored. Mr. Kelly stated that their Coast Guard approved written procedures states the tool-pusher is in control of the vessel and makes the decision to abandon ship. Since the rig is still a vessel, shouldn't a licensed marine master retain operational control of the vessel at all times? Why do you approve of the tool-pusher being in command?

ANSWER. In regard to the Ocean Ranger, the approved operations manual does allow for a division of duties between the master and tool-pusher. When the rig is underway ("moved") or in preparation for a move, the master is in charge. When on location (during industrial operations), the tool-pusher is in charge, with the master acting as his advisor (on "marine" vice "industrial operations"). In all cases, the master is responsible for rig stability. This division of leadership is not that uncommon, and is viewed as being a logical application of expertise although a traditional view demands the master be supreme. It should be noted than an offshore rig such as the Ocean Ranger most certainly does not fit a traditional view, from either appearance or function. When on location, the primary hazards are considered to be associated with the industrial (drilling) operation. As approximately 95% of the life of a rig is so spent, and the majority of hazards are associated with the drilling operation, the purely "marine" aspects generally become less significant.

21. QUESTION. What does the definition of "navigate" include? (i.e. being at anchor, drilling, towed, etc.) How does this compare to "put into service"? (46 U.S.C. 391(b))

ANSWER. The term "put in service" in 46 USC 391(b) and 395(b) generally establishes the time periods when a vessel is inspected. For instance, before a newly constructed vessel enters service it must be inspected, and then it is subject to inspection once in ever two years thereafter. 46 USC 398 and 399 provide that a vessel shall not be navigated without having on board an unexpired certificate of inspection. "Navigate" generally means movement over the water and, additionally, has been judicially interpreted as being subject to the rise and fall of the tide. U. S. v. Monstad, 134 F. 2d 986 (9th Cir. 1943). Thus, a vessel at anchor, being towed, or drilling (if subject to the rise and fall of the tide) is being "navigated."

22. QUESTION. The Ocean Ranger and the rigs in the area were icing heavily. If the Ocean Ranger was covered with 2 inches of ice, it has been estimated that is would add at least 500 tons to the vessels weight. Recognizing it is dependent upon the vessels remaining "live weight" constraints, how can ice affect the center of gravity and stability of a vessel like the Ocean Ranger?

Does this decrease the 18 degree angle at which there is no way the rig can right itself?

ANSWER. Ice coatings are an addition to topside weight just as the variable weight of the drilling accourrements on the working platform constitute topside weight. Ice coatings are not necessarily symmetrical so they may also become an off-center weight requiring or indicating a need to counterballast to the crew.

The net effect of any ice coating will be to raise the center of gravity which automatically reduces the total area under the righting arm curve.

The statement that the rig cannot right itself beyond an 18 degree angle of heel depends of many factors. At very deep drafts the upper structure will immerse at approximately this angle of heel, providing extra buoyancy and extra resistance to heeling. However, there is also the danger of immersion of some openings at a similar angle of heel which would allow extra flooding and consequent loss of buoyancy. In order to answer the question properly, we should agree on which operating draft is under consideration, which ballast tanks are being utilized, which side of the rig heels etc.

23. QUESTION. There have been reports that some companies do not report increases in their vessel's dead weight to the Coast Guard because it will decrease the available "live weight" publicly. This in turn hurts the marketability of their rig. As proof, the Norwegian government has recently inspected the stability calculations on all their vessels and found some to be grossly over their reported weight.

Can't this practice hurt the stability of a ship?

What can be done about this since the owners are apparently on an "honor system" to report changes to the Coast Guard?

ANSWER. All Floating Drilling Units, whether Semi-Submersible or Jack-Up or other variety are to some extent weight limited while in the floating mode. It is the practice to advertise the "deck load" or deadweight carrying capacity because this assists prospective leasors by allowing them to estimate the size and frequency of re-supply trips by supporting craft.

The actual amount of deck cargo (deadweight) at a given time will depend on several factors such as drilling progress, complexity, depth, weather, resupply schedule etc. and the amount changes every day. As long as the total amount does not exceed the load for which the rig was designed and approved to withstand storm (70 knot) or hurricane (100 knot) conditions, the stability should not be viewed as being "hurt". The owner/operator is under obligation not to exceed the limits of deck load which still allow the rig to meet the published stability standards.

The Coast Guard has been informed that Norwegian drill rigs, when reinclined, did show an increase in <u>light</u> weight (i.e. basic weight of unit) of at least 2-3%. The weight increase appeared balanced between high and low weight additions so there was not much change in vertical center of gravity. This would have the effect of simply reducing the advertised carrying capacity.

Additional weight has been found on some U.S.A. flag drilling units when they were reinclined. However, the vertical center of gravity was not always adversely affected. It has been reported that, in several cases of rigs on the U.S. Gulf Coast which were reinclined, the addition in weight was principally due to mud in the bottom of ballast tanks which reduced the overall vertical center of gravity (increasing stability). Therefore, Coast Guard has not felt it necessary to call for wholesale reinclinings of all mobile drilling units.

24. QUESTION. Can non-destructive tests be performed on underwater surfaces? How does their scope and accuracy compare to non-destrucive tests performed above water?

ANSWER. Underwater NDT has been used by the offshore industry for years. A 1980 underwater technology survey funded by the Coast Guard's Office of Research and Development found that both ultrasonic gaging (UT) and magnetic particle inspection (MPI) could produce reliable information on plate thickness and crack detection. In practice underwater NDT is handicapped because of restrictions imposed by the marine environment. Several major factors limiting NDT's usefulness underwater are:

- a. Problems in precisely locating points on an underwater body.

  Often sophisticated three dimensional grid systems must be used by inspection teams.
- b. The necessity of using NDT teams that employ highly qualified operators backed up by a good control and communication organization; an expensive operation.
- c. Reliable NDT results require a clean inspection surface. The ease of hull cleaning during drydock by sand blasting techniques do not have similar counterparts underwater.

25. QUESTION. What is the safety history of semi-submersible platforms? Please indicate whether these accidents were due to blow-out or drilling activities or systematic problems with the unit itself.

How many of these accidents were on site and how many were in transit? Of those on-site, how many of the accidents occurred when the unit was in a submerged status?

ANSWER. From 1955 through 1981 there were 19 casualties involving semi-submersible units with the exception of two very minor incidents in 1976, these are listed in Enclosure (1). Enclosure (1) is extracted from "Tracing the Causes of Rig Mishaps" as it appeared in the March, 1981 issue of Offshore Magazine.

- 5 Casualties were due to blowouts
- 5 casualties were due to storms on location
- 3 Casualties occurred in transit
- 2 casualties resulted from fires on board
- 2 casualties were the result of capsizing
- 16 casualties were on site
- 3 casualties occurred in transit

All of the on-site incidents occurred while the units were in a submerged status. One of the very minor incidents involved blowing a safety valve during ballasting operations.

# Casualties involving Semisubmersible Units 1955-1981.

Unit Name	\$ Damage (\$Million)	Comments ~
Blue Water #1	7.5	Sank in the Gulf of Mexico during Hurricane Hilda(1964) Total loss.
Bruyard	7.5	Broke up under tow in South China Sea(1965) Total loss.
Ocean Prince	7.0	Hull broken up by storm in the North Sea(1968) Total loss.
Ocean Traveller	0.2	Structural damage by storm in the North Sea(1968) Salvaged.
Ocean Viking .	0.2	Structural damage in the North Sea(1968) Salvaged.
Mariner I	0.1	Hull damage off Argentina (1969) Salvaged.
SEDCO 1350	3.5	Blowout and fire off Australia (1969) Salvaged.
Transworld 61	0.8	Legs damaged while relocating off South Africa (1970) Salvaged.
Mariner I	0.1	Blowout off Trinidad3 dead(1973) Salvaged.
Transocean III	16.0	Capsized and sank prior to drill- ing in Worth Sea(1974) Total loss.
Mariner II	0.3	Lost BOP during blowout in the Gulf of Mexico(1975) Salvaged.
Deep Sea Driller	35.0	Damaged under tow in North Sea (1976) Partially salvaged.
Deep Sea Saga	0.2	Flash fire in the North Sea(1976) Salvaged.
SEDCO 135	22.0	Blowout and fire in the bay of Campeche (1979) Total loss.
SEDCO 135G	18.0	Blowout and fire off Nigeria(1980) Total loss.
Alexander Kielland	62.4	Column failed on location in the North Sea123 dead(1980) not yet salvaged.
Ocean Traveller	Unk	Fire in engineroom in the Gulf of Yexico(1980) Not yet salvaged.

ENCLOSURE (1)

26. QUESTION. What discrepancies or violations were found during the past inspections of the Ocean Ranger? What follow-up was done to ensure that the proper corrections were made?

ANSWER. The inspection records are in the hands of the Marine Board of Investigation and therefore a list of specific deficiencies found during any of the inspections of the OCEAN RANGER is not presently available. However, the Marine Board will make them available in the near future as this information is documented in the formal record of proceedings. One deficiency known to exist at the conclusion of the inspection for certification conducted in December 1979, was a requirement for drydock inspection. This requirement was satisfied in April 1980.

27. QUESTION. Are there any published guidelines for operating lifesaving equipment published by the Coast Guard? If so, please submit for the record copies of the materials relating to the lifesaving equipment installed on the Ocean Ranger.

ANSWER. The Coast Guard does not publish guidelines for operating lifesaving equipment. In the past a booklet entitled "Manual for Lifeboatmen, Able Seaman, and Qualified Members of Engine Department" was furnished free of charge to merchant seaman. It was last revised in March 1973 and is generally considered to be significantly out of date. It was intended to be supplemented with other text books. Because other textbooks are available which are more up-to-date e.g., American Merchant Seamans Manual, sixth edition, and because of lack of funds for publishing free books which compete directly with private enterprise, the Coast Guard does not intend to republish the "Manual."

The lifeboat and launching equipment manufacturers prepare operation and maintenance manuals for their own equipment which is provided with each installation. Most of them also have training films which show the proper operation of the equipment. These should be used in conjunction with drills in order to have adequately trained personnel. The Coast Guard does not attempt to maintain current versions of this information.

28. QUESTION. During a storm, it is easier to disengage a lifeboat that must be lowered to the water in order to release cable tension and released externally, or to disengage a lifeboat that has an internal cable release?

Which type of releases were the lifeboats on the Ocean Ranger equipped?

Do Coast Guard regulations require an internal lifeboat release on vessels which operate in cold or high-storm areas? If not, why not?

ANSWER. There are two general types of release gear in use throughout the world. Both types are "internal" in that they are operated by a single control on the inside of the boat. One type of gear is the on-load release and the other type is the off-load release. The on-load type allows the boat to be released from the cables at any time during the lowering sequence. The Coast Guard has required this type of release gear to be used on major U.S. oceangoing vessels since World War II. The off-load type will not allow the boat to be released until tension is off of the cables. Most other countries presently require or allow this type of gear to be used in the belief that it is safer since the boat can not be inadvertently be dropped into the water from a great height. The problem with it is that if water is flowing past the vessel, the cable may still be in tension once the boat is waterborne, preventing the boat from being released from the cables. This is a problem if the vessel is at anchor in a current, if it is adrift in heavy seas, or if it is underway. There is now general agreement worldwide that the on-load type release is superior, and this type is specified in the new\_draft of SOLAS Chapter III.

The two Norwegian boats on the OCEAN RANGER were equipped with off-load type release gear. The Coast Guard approved boat that was operational and the one that had not been installed were both equipped with the on-load release.

All oceangoing U.S. vessels with the exception of certain small vessels (under 3000 gross tons), are required to have on-load type release gear on their lifeboats. This includes those that operate in cold or stormy areas as well as those that do not. The OCEAN RANGER would have complied with this requirement once the installation of Coast Guard approved boats had been completed.

# EXCERPTS FROM U.S. COAST GUARD

# AND

## NATIONAL TRANSPORTATION SAFETY BOARD MARINE BOARD OF INVESTIGATION HEARINGS ON THE

### SINKING OF THE OCEAN RANGER

## QUESTIONS OF MR. KING

Q. Mr. King, concerning your position as barge engineer, what

training did you have?

- I have been with SEDCO since 1971. I went to trade school, had an instrumentation trade and I started with SEDCO in '71 as a roustabout, working on the deck for a while, on the drill floor for a while, then decided I thought it would be Α. better to be in the control room. I was a watch stander for training and was a watch stander for two years, two and a half year, was an assistant barge engineer for about six months and became barge engineer on the SEDCO H. in '73, rearly '74.
- You have been a barge engineer ever since?

Since '74, yes.

What are the wind limitations for a helicopter operation? Q.

Under normal conditions fifty to fifty-five knots.

Mr. King, when you were talking earlier about your experience on various rigs at SEDCO, did you have any formal training in the stability or the type of work that you do as barge engineer?

Just what I was taught from other watch standers and barge engineers, plus we have video tapes on stability. It is an inhouse movie. We have different equipment around the rig. We do a film on it, show our new people and to brief people that have been on the rig a while on different equipment. We have several on stability.

0.

There has been some indication that some of the people on the OCEAN RANGER had survival suits, very few of them. Were there any survival suits on the (SEDCO) 706? On the 706 we had, on the 14, 15th, the only survival suits we had on board were the type we used on the helicopter and there was possibly twenty to thirty suits on board. How many people on board?

That night we had close to ninety people.

# QUESTIONS OF FRED HATCHER

Q. What is your occupation, Mr. Hatcher?

A.

- I am watch stander on the 706. A watch stander on the 706. What do the duties of a watch Q. stander consist of?
- Primarily working ballast control in conjunction with that barge engineer. We have certain duties checking lifeboats, lifesaving equipment.
- Now, Mr. Hatcher, you were describing what your duties consist of as a watch stander on the SEDCO 706. Would you please repeat what your job is?
- Yes, I said primarily working with the ballast control, in charge in the control room to retrim the ballasts, looking after lifesaving equipment, checking out--Mr. Hatcher, I would like to ask you a few questions about

Q.

- your experience, how long have you been a watch stander? I joined the rig in 1980. I was there probably one hitch or one and a half hitches and I went up in ballast control to be trained as watch stander.
- Had you ever been a watch stander before you joined the rig? Q.
- No, I haven't. That's the first rig I ever worked on, the λ.

- Q. Could you explain to me what training you received to be a watch stander?
- Well, I worked with the other men there in the rig in the ballast control and they spend time showing the valves, how to ballast the rig up and down and what ballast operate. A.

How long of a period did this training last? Q.

- Five or six hitches. Q. How long is a hitch?
- Well, we were four and transfer back three, so three weeks.
- three or four weeks.

  Mr. Hatcher, did your experience on the 706, 0. did you ever have occasion to work on ballast cr pumps, ballast pumps?

Not valves concerning the rig ballasts, now.

- How did you learn the pump room, what valves and what pumps Q. did what?
- A. You mean how to operate them?

Q. Yes.

Ά. From in the ballast room.

Q. Could you operate them from down below?

- À. I never did. You could, you know. It is mapped out; each one is labeled.
- Was there any provision made for the 706 to be operated from the pump room? Was it ever a practice? Was it ever Q. demonstrated?

No, I never took any demonstration. Did you have any formal training in stability or rig operation other than on the job training? 0.

A. No, I didn't.

You had gone back to the control panel. Before you were allowed to attend the control panel, how long did you have to observe certain sequences like pumping up and 0. to observe certain sequences like pumping up and deballasting and everything before they allowed you--- You were there about a week or so to show you and then it was just tried out and they stand there with you until you get the feel of the procedure.

0.

How long did you have to operate under the guidance of somebody prior to you operating it by yourself? I would say five or six hitches, because we had extra men there at the time. A.

## QUESTIONS OF MR. ROLF W. JORGENSEN

Q.

- Now, Mr. Jorgensen, what's your occupation? I was Chief Officer on the SEAFORTH HIGHLANDER. Α. The last time it was out, sir, I was out. And were you on board the SEAFORTH HIGHLANDER on the 14th of
- Q. February, 1982?

A. Yes, I was.

Q. A. And what was the SEAFORTH HIGHLANDER doing at that time? On the 14th we were standing standby for the OCEAN RANGER.

... Please continue.

And we arrived on deck, we have officer of the lifeboat on the starboard quarter and we was steaming, well pretty near south to the sea by then and the Master put the vessel into a position with the stern right into the sea as well and the lifeboats steamed around the stern from the port quarter and we saw two life rafts along and there was at that time there was only one man showing in the lifeboat, but we could see them, the other people was bailing the water out---

I see.

---to the side gates and I noted that the lifeboat had a damaged bow.

What was the damage like? Could you describe it?

A. It looked like they were smashed inward. It looks like a hole.

Q. A hole?

Yes. λ.

When you say the lifeboat was approaching on your port Q. quarter---

- Α. Yes.
  - ---and I see that one line was made fast by the man that was standing in the - there is a manhole where the man that controls the lifeboat is standing. He had one line secured, but I don't think there was any more lines secured. How many lines were thrown to the lifeboat from your vessel?
- Ç.
- À.
- To the life rafts, two. Ordinary heaving lines. Now, how far away was the lifeboat from the SEAFORTH HIGHLANDER at this point when the line was made fast? Q.
- I would say about no more than six feet.
- Q. And what happened after that?
- Well, all the people that was in the lifeboat come out on the offshore side, it would be the port side of the lifeboat.
- Q. Yes, sir
- And the lifeboat just keeled over. Keeled over, went over to port? Α. .
- Q.
- A. Yes.
- And it continued right over. Q.
- Α. It continued right over.
- What were the men doing when that happened, the men who were Q. in the lifeboat?
- They was coming out on the port side and they was trying to hold on and none of them hold on more than two, three Α. minutes.
- Now, you say they were trying to hold onto the lifeboat. This would be the grab rails on the bottom? Q.
- Yes they was trying to hold on.
- I see.
- But there was hardly two or three minutes and they started lifting up alongside the ship and we took the liferaft from the port side of the SEAFORTH HIGHLANDER and launched it and Α. the life raft right down among them and not one man grabbed for it.
- Q. It was very close to them?
- A. Yes, it was close. One had his shoulder at it.
- I see. As far as you could see, were the men alive? Well, they wasn't moving. Q.
- A.
- Q. I wonder if you would describe what the sea conditions were at this time?
- Well, the sea conditions was in excess of sixty foot waves A. and I say winds up to ninety miles an hour, at least. Did you see any of them wearing survival suits? I see like one survival suit.
- Q.
- How were they wearing their life jackets as far as you could 0. see? Were they tightly secured?
- I see two different kinds of life jackets.
- Q. I see.
- One type of lifejacket was what we call a work vest that we use on the supply boats. That is the four buckles, two in the front, two in the back like the vest type and the other type I see, I believe, is the American type with the head support.
- How many people were in the lifeboat that you were able to tell?
- Well, I might tell from what I see in the lifeboat and what λ. we seen in the water afterwards, I would say eight, possibly
- Is there any practice as far as you are aware, sir, as to where, if at all, standby vessels like the HIGHLANDER would be positioned in relation to the rig when the rig held an Q. abandon ship drill?
- Well, I haven't had an abandon ship drill with the OCEAN RANGER, but I had it with the other rigs and we were fifty generally to seventy-five feet away, position.
- And the men coming out the port side, they came out of more Q. than one hatch?
- Yes, they did. λ.
- Do you know whether it was two or three or four, did they come out of all of them? Q.
- A. At least three.

- Q. At least three?
- Yes.
- Did the men come out simultaneously or one at a time?
- No, three come out right away. All at the same time? Ã.
- Q.
- Yes.
- And what did the men do after they came out of the hatch? Q. Did they stand on the side, the port side? Did they sit down?
- Α. No, they were standing holding onto the top railing and the boat started rolling.
- And as the boat started to roll, did it roll over slowly or Q. did it go over quickly?
- Slowly. Α.
- Q. Very slowly?
- Yes. A.
- Did it ever reach a point where the line between the lifeboat and your vessel became taut or tight? Q.
- Yes, the line broke.
- It broke. Did it hold for a moment before it broke? Q.
- It was only a fifteen thread line. What was it made of? Α.
- Q.
- Ã. Polypropolene.
- And you indicated also that they were bailing because that Q. hole was in the bow?
- A.
- Yes, I see water come out the side. And that was the only indication you had that they were Q. bailing?
- λ. Yes.
- Did the lifeboat appear in any danger of sinking? Was the lifeboat riding high in the water? Fairly high at that time. Q.
- λ.

### QUESTIONS OF MR. GEOFFREY DILKS

- Q. What is your occupation?
- I am a drilling rig captain. λ.
- Q.
- And could you give us a brief description of your experience leading up to the present position that you hold?

  Before that I was captain of tugboats engaged in inland towing and offshore towing including towin drilling rigs around the Gulf of Mexico. I also have been captain of supply boats briefly in Alaska and in the Gulf of Mexico and Α.
- was an engineer. For about six and a half years I was mate and captain on two of their hopper dredges.

  Do you hold any licenses? Would you describe the licenses Q. that you hold?
- hold an unlimited master's license, radar observer and Α. first class pilot for the Delaware Bay and Delaware River. Captain, did you ever serve on board the OCEAN RANGER?
- Q.
- λ. Yes, I have.
- Q. And when did you begin that service?
- In September, 1978. Α.
- When you went on board did you begin service as captain immediately? Q.
- That's correct.
- And did you perform any other function when you went aboard at that time on the ship other than that as duties of Captain?
- Well, the rig was staffed at the time, so I was also a ballast control room operator. I stood watch twelve hours a day as ballast control room operator. The captain was A. already on there. I went up a few days earlier and he
- talked to me and showed me around the rig.

  How many of those watches did you stand, do you recall?

  Well, through September, part of October and then I was off for twenty-eight days. Then I came back, I don't remember the dates, for another twenty-eight days then we left Resurrection Bay and went to the shippard Port Alberni, Vancouver and then I was ballast control room operator for

another month or two. Then we got another second ballast control room operator so it wasn't necessary for me to stand ballast control room operator so I had other duties because we were in the shipyard at the time.

Q. Yes, sir. Now, Captain, when you began standing watch as a ballast control room operator on your own, serving along in that particular watch or job, could you describe for us what kind of an orientation period you had before you stood watch alone?

A. Yes, the captain who I relieved, as I said before, I went up early, some four or five days, and he showed me around, showed me all over the rig, indoctrinated me, explained the control - showed me the valves and the pumps and setup in the ballast control room pumping ballast listing to the rig as required, pumping up, rotating the drill water, pumping fuel, any other jobs that are required as a ballast control room operator.

Now, did I understand you correctly you said this took place Q. over a four or five-day period?

- A. Yes.
- Q. After that period did you stand watch then alone?

Ã. That's correct.

- Q.
- And prior to standing watch alone, did you actually change the draft of the vessel ballast or deballast?

  Very slightly I did. For practice I would list it one way or another just slightly half a degree an put down by the stern. We weren't doing anything, weren't engaged in drilling operations so I had an excellent opportunity to learn the system and practice somewhat the controls. λ.

Now, you are talking about the opening of these valves. How do you actually open the valves on there? Q.

A. Push the button.

- How, when you push that button to open up a valve, how do Q.
- you know when the valve is open?
  You can hear the air. It is air operated and there is a Α.
- light which indicates on and off, green and red lights.
  Now, Captain, could you describe to me what your duties were as Master of the OCEAN RANGER? Q.
- A. I was responsible for the safety, stability and navigation of the vessel, anchor, handling rig moves, loading of bulk cargos, refueling of helicopters, that's about it.
- Now, also can you describe to me the relationship that you had with the Toolpusher and the ballast control room Q. operator as Master?

- Well, amiable relationship.
  What I am trying to understand is how decisions would be made. For example, if there was a decision to place a list Q. on the vessel and you had one view and the Toolpusher had an opposite view, who would the ballast control room operator obey?
- A. Well, it depends on where the rig is, whether it is operating and whether it is in transit.

What if it was in transit?

Well, then I would be responsible for that.

What about if the OCEAN RANGER was in transit on a decision 0. to abandon ship. Who as between you and the Toolpusher would have ultimate authority?

The captain in transit.

Now, once the OCEAN RANGER was anchored and drilling who Q. would have the ultimate authority with regard to a decision to abandon ship?

The rig manager or Toolpusher is in charge then.

Captain, was this always your understanding of who had ultimate authority?

It might not have always been my understanding, but that's my understanding now and it has been for some time. Α.

We have as Exhibit 13, if I am not mistaken, the Emergency Procedures Manual for the OCEAN RANGER, if you recall this publication. I will show it to you.

With regard to the question of evacuation, do you Q.

recollect that being shown at the informal inquiry?

Yes, I do, right. λ.

Had you ever seen that publication prior to the time that it Q. was shown to you at the inquiry?

No, I haven't. A.

Do you know if the Emergency Procedures Manual was kept on board the OCEAN RANGER? Q.

A. This one here?

Q. Yes, sire.

It probably was. I was told it was after this occurred, but I didn't know it was before then. None had been delivered

to me so I didn't know whether it was on there or not. Now, I think you have testified now, you have indicated that when a vessel is in transit you have ultimate authority. Q.

A. Yes.

Q. When the vessel is anchored and drilling the Toolpusher has ultimate authority.

Right.

Q. What kind of a situation do we have when the vessel is anchored, but she disconnects and hangs off?

A. Well, you are still over the hole so it would still be the Toolpusher.

Now, Captain, would you describe to us the drills and Q.

Now, Captain, would you describe to us the drills and training program that you had on board the OCEAN RANGER? Yes. We had a fireboat drill every week. We had safety meetings every week and I also had a program, an ongoing program, we would take a group of men, take them into the lifeboats, show them the equipment, how to launch it, where the plug is, start the engine, show them all the emergency equipment, the water and provisions, where everything was kent in the boats. Α. kept in the boats.

Did they lower the boats to the water? Q.

Did they lower the boats to the water?
No, we very, very seldom lowered the boats to the water.
Why didn't they do that?
It is because it is rough - it is very simple to lower the boat. The problem is getting the boat back because the vessel is, especially when it is a little rough, the rig is rolling a little bit, it falls, will hit, rub against the limit switch and, of course, that will stop the raising of the boat and you will have to reach out and two men will have to reach out and two men will have to reach out and the limit switch down until you can get the boat back up into position. So that's the reason we don't lower the boat all the way, although the last time I was on, we had a calm day and we did lower all the boats and checked everything out. Lowered them all the way to the water line and back up again and checked all the way to the water line and back up again and checked all the equipment out and I wrote out the report on it.

Q. Did all of the boats, for example with the releasing gear,

did they all release---

Simultaneously. Α.

---under load?

The Harding Boats, they would not release under load. They had to be in the water when the gripes or, excuse me, the falls would have to be back in order for those to release. One Watercraft Boat, that was designed and could be released under load above the surface of the water and drop into the water.

How were they provisioned or outfitted?
In accordance with the U.S. Coast Guard regulations. In fact, they were all ready for Coast Guard regulations, the two Harding Boats No. 1 and No. 2 was outfitted and everything was up to date awaiting for a Coast Guard inspection.

Could you give us, sir, a relative time that it would take to bring her from a nine degree forward trim up to level Q. Do you have any idea of the again in that conditon?

approximate time?

Yes, you can do it in two hours. Was there any problem with the electrical load? You had Q. sufficient generators on the line to provide-

No, we always, all for all whenever ballasting or deballasting, all six pumps were necessary. Of course, the rig mechanic and electrician were notified so he could set A.

up the store so we could use all six pumps. Of course, if they were doing something they would let us know and let us

know how many pumps we could use. How many pumps did you always have available if you needed them, say, without questioning the rig electrician or Q.

mechanic?

Usually four, sometimes two. It would depend on what they were doing on the drill floor. We always had at least two Α. pumps anyway.

In other words, sometimes you were limited that you couldn't get all the pumps that you wanted. Sometimes you were Q. limited by other operations as to electrical loads?

λ.

That's right.
Now, could that [solenoid] valve be operated without Q. electric power on the panel?

Yes. A. Could you describe how this would be performed?

We had a kit there with some rods in it. You have to open the panel; you have to insert the rod and turn the rod to one way clockwise to close the valve and then if you wanted to open it you would turn it counterclockwise. So without power the valves could be operated.

Q. A. Did you ever do this? No, I never done it.

Was it ever necessary in your experience to have to do that? Q.

- Q.
- When you're on the unit, and the last time you were aboard, how many lifeboatmen did you have aboard? the last time I was aboard we had, well we were required to have a licensed master, two AB's, ordinary seamen and included in that is seven lifeboatmen. Besides yourself and the AB's, what was the source of the other lifeboatmen, were they seamen, were they documented? Yes, some of them were and, of course, anybody that had AB's, we always had a few of those was automatically a lifeboatman and some had Canadian Coast Guard or Canadian

Q.

A. lifeboatman and some had Canadian Coast Guard or Canadian Certificates also and I, as I said before, we had an ongoing-program where we were training our own lifeboatmen and we just issued certificates, too.

This was a company certificate that was issued to them? Q.

Well, it was - we made the certificate ourselves. In fact, the safety man did and it was just to show that they had been indoctrinated and were competent to understand and lower the start the boat and operate the boat.

Was there any practical demonstration of their ability as a Q.

lifeboatman performed prior to the issuance of--No, not really. That would be rather difficult. A. No, not really. before, we would explain them how to start the engine, where the plug is, how to do each thing. You know, they didn't actually start the engine themselves, although I think some of them probably did, but we had plenty of people who could operate the engine.

and during the time that the unit was off Newfoundland, was there any occasion that you were able to launch a lifeboat

there any occasion that you were able to launch a lifeboat and operate it in the vicinity of the rig? Well, there were very few, if any, such occasions. However, there was one occasion when we got the No. 3 lifeboat, we raised that by crane, put it in the water, had standby boats stand by and brought it around to the davits. It was an exceptionally calm day. That's the only time up there we every actually put men in the boat and sent it out in the water. A.

What were the sea states that you experienced during that Q. storm?

Well,---

The maximum sea states?

Q. wind gusted up to eighty or Upper fifty-eight feet, eighty-five knots.

Q.

What were the average seas during those conditions? I suppose around forty-five feet, forty foot. And do you know what the heave was of the rig?

I would estimate sixteen, eighteen feet.

- Now, under those conditions I would like to ask you a Q. question just based on your experience as a seaman. I am really trying to get an opinion and you might be the best one to state what you thought, but under those conditions, would it be possible to launch some or all of your three lifeboats that were installed?
- It would be possible to launch them, yes. To lower t When you say launch, it would be possible to lower them. Lower and launch them. Α. To lower them.

Q.

I don't know about that, but, of course, it is nothing to lower the boats. They are lowered by gravity.

Who would you have working for you? Q.

Well, the only ones I would have directly working for me would be the ballast control room operators. Ā,

Q. You mentioned that there were AB's aboard. Α. Yes.

Would they be working for you? Q.

- No, they wouldn't be working for me; they probably would be roustabouts or drillers or safety men or something like that. That would be their primary function, but they have an AB ticket.
- What would your understanding be for the purpose of the AB being aboard? Q.
- Well, they were required by the certificates of inspection Α. to have some AB's aboard.
- But what would be their purpose other than Q. their requirement?
- It doesn't specifically state on the certificate for inspection what would be the exact purpose. I would assume A. the Coast Guard wanted some marine personnel aboard the rig at all times.

I would like to ask you some questions concerning evacuation of the OCEAN RANGER. Under what weather conditions would ٥.

you consider evacuation necessary?

- Well, the rig is designed to take 100 knot winds, A. seas and 3 knot currents and maintain her stability. So, that's a hard question to answer. And there are some improbabilities, so I would say you would have to exceed that before you would - unless you lose stability for one reason or another if something gets loose on deck, something rolls around and offsets the stability, damage to the hull or for any other reason then you have to give consideration to evacuate the rig.
- Now, going back down to the ballast control room, do you know what types of instruments were in the control room to ο.
- read the draft of the vessel?
  To read the draft we had to look out through the porthole, there was a draft mark, two forward and two aft on each Α. That's one on each corner. There was four all together.
  That was the only means you had of reading the draft?
- Q.

Α. That's right.

There was no readouts on the panel or on the board? Q.

A. No.

Now, if that port light was damaged as has been alleged and the sea came in there, what would get wet first? Q.

Your king gauges. And after that? A.

Q.

- Well, it depends on how big the sea is, I guess. It could conceivably flood the place out. The next thing would be after the king gauges would be the desk and possibly the computer and then it would go around and get the control
- The last time you were out on the OCEAN RANGER, do you recall whether the port, the deadlights, were they taken down for any reason? Q.

λ. They were open.

Were they hung on the chains? Q.

Ã.

That's right.
They weren't removed, the pin wasn't out of them and they weren't removed, were they? Q.

No, they were there when I left. Α.

Would you explain to me what procedure was followed in your 0.

would you explain to me what procedure was followed in your experience on hiring or acquiring a new control room operator? What procedures was normally followed? If we are going to acquire a new control room operator, well, usually you will hire if there is a vacancy existing we will hire somebody who has taken an interest in it and usually there is a man or two around like a roustabout is interested in it. For instance, Mr. Dyke, he was interested and he on his own time would come down for several months into the ballast control room and learn the setup, learn the valves and the stability calculations, the running of the valves and the stability calculations, the running of the pumps and so forth. So usually we always have been fortunate, I suppose, in finding someone who has taken an interest in it so we can already get him partially trained before we have to put him on by himself.

You say he would do this on his own initiative at first?

Q.

Yes.

Would he do this within his normal working hours?

Usually after his working hours.

After his working hours?

Yes.

If a decision was made to go a step further and perhaps evaluate him, what procedure was followed then? Well, if the man is satisfactory we would accept him.

Was there a period of evaluation or orientation?

I would be down there with one of them. I would say, how is he doing, and he would give me a rundown he is interested or he is not interested or he is coming along fine or he is not coming along so good and evaluate that way and make him a ballast control room operator or not. How long did this evaluation period normally occur?

- Well, in the case of Mr. Dyke it was a period of several months and when the break came when there was a vacancy, why he was all set to fill the bill.
- The period I am referring to was that period where he would be standing some watches in the ballast control room during 0. working hours, being evaluated, how long would that period
- No really set time. There is no really, I can't put my finger on the number of hours or number of days. Α.

Do you recall in the case of Mr. Dyke, approximately how Q.

long that period was?

Well, he was months because there was no vacancy for him and Α. over a period of time of months, maybe six months or so he was down there so he was all set to take over.

٥. And for the six months did he actually stand watches in

there during his working hours?

- Not during his own working hours. No, if I recall correctly A. near the end when we knew we were going to need a man and during these working hours the Toolpusher would let him go down there during slow periods for a couple of hours with the ballast control men and then we would leave him by himself sometimes when there is nothing going on. So he would have a good idea of what's going on when he is down by himself.
- Prior to him standing watch by himself alone in the ballast control room, was there a requirement that he personally 0. change the draft?

There was no requirement, no. Were there any instructions or training concerning manual 0. operation of the ballast valves in the event of a power failure?

No. Α.

Was there any requirement before he stood watch on his own as the ballast control room operator that he read the operating manual?

Yes, we pointed out the operating manual, yes, make sure that he familiarized himself with the operating manual.

If you evaluated a control room operator, did the Toolpusher take part in the decision of whether or not to put him in Q. the ballast control room?

- Yes, he could do that. Either that or we would have to contact the office ashore, of course, too. Who had the ultimate decision as to whether or not he would A.
- Q. be hired? Was it you or the Toolpusher or was it ashore? It would be, the shore would have the ultimate decision.
- A.
- Q. And when you say the shore, who are you referring to? Well, in this case it would be the St. John's manager.
- Ā.
- Q. What company are we talking about?
- Ã.
- You made some reference before to observing the draft marks by looking through the port lights. What about in rough weather, could you see through those port lights in rough Q. weather?
- Not if there is too much spray around and it would be very difficult to estimate a draft in rough weather. A.
- Were the port lights, due to the nature of the operation of Q. the rig, ever dirty or ---
- Yes, sometimes. Especially if you were taking on barite or Α.
- Yes, sometimes. Especially if you were taking on barite or cement by some of the cement going through, the overboard discharge there the wind would catch it a certain way to blow against the glass and fog the glass up.

  Now, when that condition arose if it—was in rough weather and the port lights were dirty and you couldn't see through them, was it possible in heavy weather to go out and clean Q. them?
- λ. Well not in heavy weather, no.
- Q. Why?
- Well, it would be too dangerous.
  Captain Dilks, did you know when the spot inspection expired? Were you aware of the date of the expiration? Q.
- A. Yes.
- Did you make any preparations or requests for reinspection? Well, I didn't have to. The office new the certificate expired. In fact, we had Mr. Purtell, Lieutenant Commander out there last fall. He knew it expired December 27. Q.
- Was there any communication between yourself and the office Q. regarding the certificate expiration date?
- Well, I have written notices or letters explaining when certificates expired. I have done that a number of times A. for deratification certificates and various certificates besides inspection.
- In your opinion, who is responsible aboard the rig to do Q. this as far as watching the expiration of a certificate?
- I do.
- Q.
- I do.
  You are responsible rather than the Toolpusher?
  Well, I should think so. I will take the responsibility for
  the certificates because thy are primarily marine
  certificates, SOLAS Certificates of Inspection. The line
  certificates, I have checked them myself and I know the
  dates when they expire and the date, if the date is coming
  up I will notify the office it should be renewed. I have
  done that from time to time. done that from time to time.
- And in your knowledge of the ballasting system on there, would it be possible to operate the system strictly from the pump rooms if you had a sufficient number of qualified Q. people?
- To the valves themselves opening and closing?
- Valves and pumps, do the whole operation, pump out or flood whatever you had to do in this operation strictly from the Q. pump rooms without going to the controls?
- You can operate the pumps down there, yes.
- Q.
- And the valves?

  I don't see how you could operate the valves down there. suppose it is possible. You can take a wrench and open and close, but I don't know; I never tried it. Not bow valves. Of course, the sea suction that's a hand operated valve. Of course, the sea
- I am talking strictly about the remote control butterfly Q. valves.
- You can manually operate the actuators down there. λ.

Yes. ٥.

- Well, we have never done whenever I have had people like mechanics or anybody working on them, we always operate them from the ballast control room. I really don't think they
- rrom the ballast control room. I really don't think they can be operated by hand down there. I really can't--Up in the ballast control room in the last tour you had on the OCEAN RANGER, do you recall if there was any cracks in any of the portholes?
  No, I don't recall any cracks in any of the port lights.
  In rough weather do you feel that the draft could be accurately read through the port lights looking at the columns?

- 0. columns?
- A. In rough weather it would be difficult. You would have to estimate the draft.
- So, therefore, from seventy-eight to eighty feet would be Q. rather difficult?

Right. You would have to do that by computation. Α.

- As a ship Master, with your knowledge and experience of Q. loading and discharging and vessel stability and things like that, do you feel that the ballast control room operators have a realistic grasp of the principal of stability or do they just learn how to fill in the blanks?

  Some of them have a realistic knowledge and others don't.

  And of the people that were aboard the OCEAN RANGER at the
- Q. time of the catastrophe, do you know those two control room operators?
- Yes, one of them was very good. Yes, I knew both of them, Α. right.
- Have you worked with them? Q.

Ã. Yes.

The one that was very good, do you feel that he was good in stability as far as the principal of it rather than just---Q.

A. ---filling out. Q.

Yes, he knew whether it was and he had been a ballast control operator on the OCEAN RANGER for the recent year and A. a half going on two years.

Did you discuss with him, for instance, the KG, he new what Q.

KG meant?

- Yes. λ.
- He knew what GM meant? Q.

Ã. Yes.

He new what the Metacenter was? Q.

- I think he did. Of course, he wasn't on my hitch so I was off, but there was an overlap, but he seemed very confident λ. and knowledgeable in those areas.
- ٥.
- And the other operator that was on there, the one who was less experienced on there, do you feel that he had or was it possible he had a grasp of this?
  No, probably not. He was new. He was still in the learning stage. He was coming along fine. He was safe to have down there, but I don't think he really understood yet, but he

was learning all about the stability.

In\_respect to the certificates in lifeboat men, did you ever have an occasion where you notified the people ashore that you were not complying with the certificate of inspection?

Letters had been sent previously when we first went under U.S. flag, what was required, what was not required. As I and before at the time especially before rig moves. ο.

- A. said before, at the time, especially before rig moves, I always specified the number of personnel required. Did you ever have occasion to tell them that, hey, we have
- Q.
- fallens short or we are not complying? Did this ever occur? No, we usually had the men there. Probably was some time we might have been short handed, didn't have all the lifeboat. A.
- How often, if you did, how often, sir, would you ascertain that you were with complement recognizing the continuing Q. changeover of crew?

How often what? λ.

Well, you said before you had some difficulties because of a Q. constantly changing crew on board.

λ. Right.

- And I was just wondering how often you verified that you had Q. on board at that moment or that period of time the, those
- people required by the certificate?
  Well, no specific time. Maybe every couple of months and
- before rig moves I would go around and check these.

  Now, sire, who was the Toolpusher on your tour or your watch? May I suggest it may have been Mr. Leger? 0.

That's right, Leger.

Now, I use the word "Toolpusher". I think you eathe term rig manager. Are those terms synonomous? ο. I think you earlier used

Do you know if Mr. Leger had any marine qualifications, sir? Not that I know of. Q.

Α.

Held no Coast Guard Marine Licenses that you know of?

I don't know whether he did or not. Ã. To the best of my knowledge he didn't hold any.

And did you consider that in situations of imminent threat Q. of severe damage or loss of the drilling unit your authority superceded all other personnel on the rig?

It depends on what caused it. If it was due to weather, I would be responsible, but if it was due, for instance to an impending blowout, then that would be under the Rig master's jursidication.

And your understanding, at least in January, 1982, was that the final word on any decision to abandon the rig was yours, Q. is that correct?

Well, up to that time, yes. it was rather nebuluous as to who exactly, but it has been clarified since that, when the rig is anchored on location the Toolpusher or Rig Manager, λ. as we referred to him, is in charge. When it is in transit then I.am.

Sir, I would like to know at this time if you have any, an opinion, sir, as to-how possibly to improve the survival of a rig like this in a storm? See we are here investigating a casualty and, of course, our ultimate aim is to try to determine what happened, but more importantly how to prevent it from happening in the future. Q.

That would be hard to answer since we don't know what happened so we don't know what we are preventing. But one possibility would be apparently like develop the list. I don't know as from hull damage or something else, if it wasn't for hull damage, the only way the water could get in was through the sea suction. I would suggest that at the elevator level you have an extension rod from your sea suction to a hand valve fitted at the elevator deck so you wouldn't have to go all the way down the elevator through watertight doors and so forth and then the elevator might not work, might be stuck, then you could stop any water from not work, might be stuck, then you could stop any water from entering, if the cause of the list was not from massive damage to the hull.

## QUESTIONS OF MR. JIMMY COUNTS

Mr. Counts, what is your occupation? Q.

Drill Superintendent for Ocean Drilling and Exploration

Company.

Now did I understand you correctly to say you were, in fact a Toolpusher at one time? Q.

I have been at one time, yes.

And did you ever serve on board the OCEAN RANGER in that capacity?

Were you on board the OCEAN RANGER on the 6th of Pebruary, 1982? Q.

- Q. Did anything unusual occur on that day while you were aboard?
- Well, we were taking on a list. λ.

Q. Would you please describe in your own words what happened, the sequence of events which occurred on that day, trying to be as specific as you can?

We were taking on drill water and we were taking on the starboard side and we developed a list, little list over there then. Naturally it was taking on a list and the Captain went to level the rig and he accidentally opened sea chests on the port side and we were taking a list.

Q. you telling us that a ballast tank was flooded Are accidentally?

Yes, there were two ballast tanks opened accidentally.

- Now, would you tell me, Mr. Counts, after that incident, was there any kind of a meeting which involved the Captain 0. Clarence Hauss and Bruce Porter?
- Yes. The Toolpusher got the Captain up to his office and discussed the matter. A.
- Were you there during the meeting? Q.

A. Yes.

Would you tell us as accurately as you can recall exactly what the Toolpusher said to the Captain? Was Bruce Porter Q. Was Bruce Porter there, too?

I am not sure if he was in there or not.

- All right. Well, would you then tell us as accurately as you can recall what Mr. Thompson said to the Captain Clarence Q. Hauss?
- Just asked the Captain what had taken place and the Captain told him, you know, he was going to ballast, get the rig level and he just opened the valves accidentally. A.

Q.

What else was said? That's about it. As far as I know, that's about all the λ.

discussion was about. Well, what did the Toolpusher, Mr. Thompson say when the Q.

Captain explained that?

He just, well, he said, you know, you should understand the system better. You should, you know, you shouldn't go actuating valves unless you make sure that you are opening, A. actuating the right valve.

Is that all they said? Q.

That's about it. λ.

- Did he give him an order not to touch the valves? Q.
- Without the ballast control room operator in there, yes. He said that? A.

Q.

λ. Yes.

Q.

Do you recall how he said that? He just said you do not go in there alone, he said, or A. without the ballast control room operator.

# QUESTIONS OF BRUCE PORTER

Q.

- Mr. Porter, what is your occupation?
  I am a former control room operator on the OCEAN RANGER. λ.
- And could you give us a brief description of your work experience and your background?
  You mean prior to my work on the OCEAN RANGER? Q.

Yes, sir. Q.

- I have had various jobs over the years, but most of my work has been involved in education in one field or another, one area or another, either as a teacher, a high school teacher λ. or as an administrator, a principal and a consultant in the field of education.
- And this was your background prior to becoming associated with the OCEAN RANGER, is that right? Q.

That's right.

And when did you, in fact, take up employment on board the 0. OCEAN RANGER.

July 2nd of 1981.

- July of '81. And in what capacity were you employed at that Q. time?
- I was employed as a roustabout with an offer to train as a A. control room operator.

Tell us what does a roustabout do?

A roustabout does miscellaneous labor duties under the supervision of the crane operator. Working with the crane operator moving materials around the rig and quite a bit of scrubbing and cleaning and painting and an assortment of assistance to other people on the rig.

Q. And how long is your workday, the workday of a roustabout?

Twelve hours.

Now, you say there was a promise of employment as a control room operator at some point? 0.

Initially there was a promise to train as a control room operator.

Now, could you describe how that training proceeded from the 0. yuou came aboard as a roustabout, when did that training commence?

The training commenced, I think it was my second day on the rig when I went to the control room on my off shift, off tour we call it. That would be after I had worked my twelve-hour shift as roustabout and it continued in that fashion for awhile.

Now, did you do this on your own initiative or were you Q.

required to do it?

I can't say that I was required to do it as such, but the terms that were used was that I should do it. I don't recall that anybody ever said that I had to do it, that I must do that, but it was encouraged and suggested. A.

Yes. sir. All right, so you are working as a roustabout and now after your twelve-hour day you spend some time in the 0. control room is that right?

That's right.

Did you receive any training for example or did you have an opportunity to have some of your questions answered, that kind of thing?

Yes, yes, of course, yes. It started rather gradually with observation, just everything was completely new, of course, and I would begin asking questions about what's this for and what's that for and et cetera. And then it just gradually built up.

Now, on the average, about how much time would you spend in Q. the control room after hours when you went down there on a given day?

On the average about between an hour and an hour and a half. Α. It wasn't every day.

Yes, sir. Now, at some point were you advised that they intended to assign you to the control room for a period of 0. your workday?

Yes, this would have been, I think in my third hitch, toward the end of my third hitch I was told that I could go down λ. for two-to three hours per shift.

Q. Two to three hours out of the twelve-hour period?

That's right. λ.

Q. Now, under this arrangement you spend, you said two to three hours of your twelve-hour workday in the control room? Yes, and again it wasn't every shift.

Could you describe the kind of training you received under Q. that arrangment?

It involved largely question and answer exchanges. It involved my observing various operations of the control room operator; it involved my doing some of these operations at A. various times.

Did you actually change the draft of the vessel yourself Q. during this period? I don't recall that

λ. I actually changed significant, to any significant degree.

Did you, at any time during this period, place a list on the

Q. vessel or take a list off the vessel?

Yes. Yes, I did quite a bit of that.
Do you recall the details on that? What was the size of the Q. list that you induced or removed?

I don't recall specifically the details of any one that I actually did. It would have been modest, perhaps you know, A. a degree or a degree and a half, I suppose, at maximum. It was done either as requested by the drill floor, say, the control room operator would have me do it in order to give me experience in operating the panel.

Q. Yes.

- Or in the later stages of my training he would actually have Α. me simulate some moves.
- so, is it accurate to say that this kind of training that you were getting, where you spent a portion of your work hours in the control room lasted about a week, is that 0. accurate?

λ. No, no, this is, no.

- Q.
- Well, perhaps you could --That lasted for at least three weeks, that portion ---A.

Q.

---that I am referring to, over and above that. In December when I came on the rig on December 10th to 17th, I had a full week of twelve-hour shifts, a total of eighty-four hours in that period ---

I see. Q.

---with the other control room operator.

And after that full week did you then stand the control room Q. watch by yourself?

That's right.

Q. Did you ever have an opportunity to place a list on the vessel, say, of five degrees?

A. No.

Did you ever observe that being done? Q.

Α.

- Not being done, no.
  And prior to standing the control room watch on your own, were you required by your employers to read any technical material, technical information, anything concerning Q. stability?
- I was required to learn the computations, the calculations, the mechanics, if you wish, of doing the nightly and weekly A. stability of the rig.

Q. Yes, sir.

I can't say that I was strictly required to do any reading beyond that. Certainly the Control Room Operator's Manual was available for me and at one point it was mentioned by Captain Nehring that I should look at this. In addition to that, the safety man we called him, or the training officer, Bob, and I don't remember his surname, gave me three books from the rig's library that he suggested I read. Did you receive any instructions before standing the watch

Q. by yourself as ballast control operator which dealt with a loss of power, electrical power to the ballast control console and the necessity for manually operating the ballast

valves?

I don't think that I received I can't recall specifically whether I received any instruction before I was standing λ.

watch on my own on either of those.
Were you aware before you stood watch by yourself of the fact that the ballast valves could be manually operated? Q.

λ. I was aware that the sea chest valve could be manually operated.

Yes, but what about the other ballast valves for all the Q. ballast tanks. Were you aware of the fact that they could be manually operated?

I don't have any recollection of being aware of that. λ.

Q. Did you have other duties to do also?

Yes.

Q. What were they?

what were they?
At varying times, sometimes we would have to go out and walk around to the winch houses to make readings of anchor tensions. Some other times we would take these readings off the computer in the control room. Another thing we would have to do would be if the computer was down, as it was, A--

would be to go out and check the heel, looking at the, observing the slip-joints to make a rough estimate of the heel to the rig.

Another thing, sometimes you would have to go out to change a crossover valve for circulating drill water, if you wanted to drill water from one side of the rig to another you would have to open the crossover valve in the emergency generator room, something like that.

Q. When you were performing these other duties outside the control room, was there somebody then in the control room?

Generally not.

- Captain Hauss ever or any of the rig Captains have any Did
- captain Hauss certaining?
  Captain Hauss certainly didn't. I can't say that any of the Captains did. I can't recall any formal occasion and I can't right now recall any informal occasion where I have A. talked with either of the Captains about specific aspects of the job.

So you feel ---Q.

- λ. I wouldn't rule out some informal discussion, but I can't recall any.
- Q. Do you feel then that the choice of making you control room
- operator was up to the Toolpusher?
  I don't know that. It seemed to rely heavily on the λ. judgment of my readiness by the senior control room operator.
- Have you ever seen the front panel of the control console 0. off?
- λ. Could I ask if you mean the ---

The lower.

The vertical panels?

Q. Vertical panels,

- Yes, I have, yes. What was inside of them? Q.
- I can't remember in much detail ....

Do you recall what reason they were off? One was off and just by Don just a few days before I left the rig. Don was showing me the little wrench over the right side of the control room and the little rubber seals or packets or whatever that he said you could remove to adjust the valves.

Another time I saw the panel off, Don had been doing some work there, I am not certain what.

- Going back to the small wrench that Mr. Rathbun had described to you or was shown to you. What did these wrenches do? Would they control valves' air electrically or what did they control, do you recall? 0.
- I don't recall. This was just a passing introduction to this matter and I don't know what I was doing, but I remember that we didn't get to finish this particular lesson, if I can call it that. I don't know exactly whether I got paged and had to do something else, but I do recall that he just got to mention this to me. I wouldn't like to try to describe in minute detail what it was supposed to be for. I do know he did say if you had to control the valves manually, then you could use this wrench, pull out this rubber packing and use the wrench to turn it in or out. I recall that much.
- Was this during your indoctrination period he was showing you this or after you became a full-time operator? This was later, just a few days before I came off the rig. I see. So then your training was ongoing then as far as you Q.
- ٥.
- That's right. λ.

- I'm sorry, Mr. Porter. If you were using, this is kind of a hypothetical situation, but I think it might have entered in your training, if you were using the ballast control panel Q. and you lost electric power to it, what would you do? Were you instructed in this or do you know?

  Again, it would vary with the circumstances. If I lost the
- power, the first thing would be to call the electrician and perhaps the Toolpusher simultaneously.
- In your training or instruction or experience, did you ever
- learn what alternatives in operating the ballast control valves, if you did losepower?

  A. No, I can't say that I did. With the minor qualification that the little bit of mention that I referred to earlier with Don Rathbun using the wrench on the valves, if that's applicable and I don't know if it is. So, I would guess the
- answer is basically, no.
  Okay. In the same vein as electric power, if you lost air supply to the control panel, was there anything you could do to operate the system? 0.
- I don't know.
- Barlier you referred to weekly tests of all the valves that are controlled from the panel that you open and close the valves once a week to test it. Was there anybody in attendance on the other end in the pump room to observe the Q. actions of the valve controls?
- No.
- There was no one down there to give you a call and say this Q. valve is operating, I am pushing this valve to match your actions against what was happening down there?

  I don't know if it was done on other times, but the times
- λ. that I did it, no.
- Did you make any record of this test?
- Q. No, I don't think so.
- Was this set out in the normal routine, written routine, or did you just learn this by word of mouth? I learned it by word of mouth. I don't know of any written Q.
- inscription.
- Q.
- inscription.
  At this point I wanted to ask you, not a question, but whether you felt you had anything to offer, an opinion or any statement you would like to make, sir, in respect to the casualty. No. 1, if you have something further you would like to say if you have an opinion on it, and secondly if you have any ideas at all on what could be done to prevent a future casualty. At this time, it is your turn, sir. I think I understand. There are two or three areas that I perhaps could make a little comment on. The first one, I hope you don't mind my taking advantage of this occasion to clear up what might have become a confusion, through the press, Captain Nehring referred in an interview one time to a situation that he had when he came to Canada as he said with this rig. Namely, that he had four experienced control a situation that he had when he came to Canada as he said with this rig. Namely, that he had four experienced control room operators and because, and I don't pretend to quote him precisely, but because of the Newfoundland Manpower Regulations they were now put in a situation of having only two experienced control room operators. There are a couple of points there that I want to make to perhaps clarify that. To the best of my knowledge, and this is gained to some extent by talking with the people at Newfoundland Manpower, the two Newfoundlanders who were put in that position weren't put there at all as a result of persuasion or suggestion of anything else from the Newfoundland Government or that particular body. or that particular body.

Secondly, all three of the experienced American control room operators that I talked with, namely Frank Jennings, Cliff Himes and Don Rathbun had told me that I had certainly as much training as they did, if not more, when they assumed ... their duties.

The point I am trying to make, is that whatever else is made out of this whole situation vis-a-vis the control room operator on the rig the night of the disaster, I don't think that either the Newfoundland Manpowers' guidlines or the nationality of the control room operator had anything to do with it.

Perhaps just one other area that I can speak on generally. I gather that nobody knows what caused the tragedy. I certainly haven't heard any explanation for it. So, whether I gather that hobody knows what caused the tragedy. I certainly haven't heard any explanation for it. So, whether I had any thorough experience or not, I couldn't really comment on how to prevent it if we don't know what caused it. But it strikes me as very, very odd that we have this wonder of modern science and modern technology, apparently not quite as wonderful as we like to believe, but nevertheless certainly a tribute to modern ingenuity, and everything else and just a few hundred yards of whatever from it we had a boat that was capable of weathering that storm that night and perhaps many worse, I don't know, but we didn't have any way to transfer the people from one to the other. Any time that I have talked with any of the lucky crew members who with the luck of the draw were on shore that night, one thing that we have always come up saying is, you know, the boys didn't have a chance. We feel that no matter how good other aspects of the safety drills or what have you were on the rig, we generally feel that they didn't have a chance to get away from that rig when something like that happened. If we did get away as I gather a few of the boys did, they still didn't have a chance of being fished out of the sea and that to me is, as I say, tragically ironic that we have for all this hundreds of millions of dollars the very best of modern ingenuity put into this dust a marval of technology that can drill miles of millions of dollars the very best of modern ingenuity put into this just a marvel of technology that can drill miles into the ocean and we haven't yet devised a contraption that would take a few men and transfer them a few hundred yards to a boat that would save their life if that rig were in trouble. I would hope that if anything comes out of this in the way of improvements in preventing a similar thing in the future, that that's one area that would be given special attention, so that the men and women who are working on offshore rigs, wherever they are, especially in the wild waters of the North Atlantic, would have a change. That's all I have to say.

Thank you for your kindness in the questioning.

# **OUESTIONS OF DEAN KUTZ**

Lieutenant Kutz, you stated that you are presently at the Marine Inspection Office in Providence. What position do

λ.

you hold there?
Well, I have held various positions there. You rotate
through the various jobs within that specific office.
During January of 1982, did you have any telephone
conversations with ODECO personnel concerning the OCEAN Q. RANGER?

A.

Yes, I did. Could you relate to us the substance of those telephone Q. conversations?

During the last week of January, I am not sure of the date, it is around the 26th or 27th of January, a call came into the Marine Safety Office in Providence from a Mr. Thomas λ. the Marine Safety Office in Providence from a Mr. Thomas Dossett who is employed by the ODECO Drilling Company of Canada; Limited. He was inquiring about making arrangements to have the OCEAN RANGER inspected. I took that particular call and talked to Mr. Dossett and I informed him that arrangements for an inspection of the OCEAN RANGER would have to be made through Coast Guard Headquarters in Washington, D.C. I gave him the phone number of the particular office in Washington that could handle his request and told him that he would have to contact them. At

the same time I also told him that I would call the people in Washington and tell them the situation and they could get together and decide what had to be done or what arrangements had to be made to have the OCEAN RANGER inspected.

During that conversation did you discuss the fact that OCEAN RANGER's certificate had expired in December of 1981? Q.

Yes, I did.

Could you tell us what the substance of that part of the Q. conversation was?

- A. Well, when Mr. Dossett identified himself and indicated that he was looking to make arrangements to have the OCEAN RANGER inspected, I asked him if the certificate of inspection namerous, I asked nim it the certificate of inspection hadn't expired in December and he replied that, yes, it had. I said, Well, this is kind of a late date to be asking for an inspection, isn't it. And he replied, Yes, and then indicated that the reason they hadn't requested an inspection earlier was that they were in the process of installing two additional lifeboats on the OCEAN RANGER and that they wanted to get that installation completed so that it could be inspected.
- Prior to January of 1982, had you ever inspected the OCEAN Q. RANGER before?

Α.

When was the first time that you inspected the OCEAN RANGER? Q. A. I was one of several people from the Marine Safety Office in Providence who conducted an inspection of the OCEAN RANGER in December of 1979.

And what was the purpose of that inspection? The purpose of that inspection was to, it was an inspection. Q. A. The rig at that time was changing registry from Panamanian to U.S. Registry and the inspection we conducted was an inspection of the unit.

Could you briefly explain the extent of the inspection, what Q. it included?

Well, the inspection itself, as far as I know, was very thorough and extensive. I myself only inspected engineering, electrical, piping, pumps and six or seven ballast tanks. I was on board the RANGER three, possibly four days and then I was scheduled to go on leave. It was near Christmas. I had scheduled leave and I departed on leave and the inspection was completed by the other personnel that had initially started the inspection with me. A.

Mr. Kutz, what was your understanding on the morning of February 15, 1982, before you heard the news about the RANGER as to how many lifeboats the OCEAN RANGER was actually required by the U.S. Coast Guard to have on board Q. and operative?

The regulations required that it have two lifeboats and sufficient davit launch life rafts. However, they did not have that when the certificate was issued or a deficiency letter was issued to that point. A.

When you were on board in January of 1980, did anyone come along with you to inspect the RANGER's lifeboats or life rafts? 0.

Chief Warrant Officer Scanlon went with me, but I am not sure one of the items he looked at was lifeboats or life rafts.

Wouldn't it have been reasonable for him to have done so if Q.

there was some outstanding discrepancy? Well, if you will note that discrepancy was not required to λ. be completed until the next certificate of inspection.

So, when the - you say it is to be done prior to the next inspection for certification, that would have been the inspection that was due on December 27, 1981, is that Q. correct?

That would be the next inspection for the certification, λ. yes.

1

λ. Yes.

### QUESTIONS OF MR. JAMES DAVIDSON

- Now, Captain, where were you on the 14th of February, 1982? I was Master of the supply vessel BOLTENTOR the majority of that day. We were standby vessel for the SEDCO 706. Α.
- You say you saw a lifeboat there near the HIGHLANDER. What was the aspect of the lifeboat? Q.
- All I could see was the Α. It was completely upside down. bottom of the hull.
- Q. Before that time had you seen any other lifeboats?
- Α. No, sir.
- Q.
- After that time did you see any lifeboats, the lifeboat other than the one that was with the SEAFORTH HIGHLANDER? About two or three days later we found a lifeboat and we approached it, had a good look at it. It was upright, but the bow was split open from gunnel to keel. It was gaping open three, four, five inches. The canopy was still, the A. rigid framework was still structurally sound, but there were large gaping holes forward, aft and in both sides of the upper structure. Water was flowing in, the lifeboat in aspect was down by the stern somewhat. The water was flowing in through the crack in the bow straight out through the gaping hole. The aft gunnel was just about submerged. Any identification on that lifeboat that you could see?
- Q.
- Ã. "I believe it was No. 1.
- Were there any bodies? Q.
- No signs of bodies or life jackets within that No, sir. vicinity.
- Could you see any of the releasing gear on that lifeboat, the external parts of the releasing gear?
  Yes, it was there, but I didn't make a close inspection of Q.
- Α. it and couldn't describe it.
- I wonder if you could tell whether it was still, appeared to Q. be intact in the bow and the stern?
- I couldn't say, sir. I was reading a transcript last night A. and my chief engineer could probably tell you more. He did have a look at it, but the lifeboat was landed in St. John's and presumably was given a thorough inspection.

  Now, did your vessel pick it up?
- Yes, we did. We pulled it over the stern. I was informed later that it was a lifeboat that had been landed on or a new lifeboat taken to the OCEAN RANGER and had not yet been put in position so it was still standing free on the deck of the OCEAN RANGER, but that's something I was informed.
- And that was identified as lifeboat No. 1?
- It had No. 1 painted on it, yes.
- It had No. 1 painted on it, yes. Captain, as you know, the purpose of this inquiry is to try to find out what did happen on the night of the 14th, morning of the 15th and to try to develop recommendations so that it will not happen again, to preclude it happening. That's the reason that we have been asking you questions. Now, sir, I would like to offer you an opportunity to, if you have anything further you felt you could add to our investigation, essentially something that we haven't asked you a question on that you wish to put before this group or if you have a recommendation that you would like to make, essentially, sir, it is your turn.
- if you have a recommendation that you would like to make, essentially, sir, it is your turn. I don't think there is anything I can add that would assist with the inquiry as to why it happened and subsequent events. As I have said to your people before, it did appear to me that the actual hulls of the lifeboats were just not sufficient strength to withstand anything like those weather conditions and that the hulls should be made of much more substantial material such that can absorb an impact. Were those after end lifeboats to get away from the hull itself or from the rig itself they still had the danger of those wires to get clear of, and it is my opinion that if they had rammed one of those wires or been thrown onto one that they Α. rammed one of those wires or been thrown onto one that they would have smashed right through the hull. But I am not an expert in these matters, but I know I would feel a lot safer if I had a lot more thickness on my lifeboat hulls. Once the hull was broken and there was water within the boat, I

think that must have made conditions far worse than they would have been even just tossing up and down in a dry condition because the sea temperature was approximately 2 degrees below celcius.

## **OUESTIONS OF BAXTER ALLINGHAM**

What's your occupation, sir? Q.

Presently I am Captain on the offshore supply vessel A. NORDERTER.

Where were you on the 14th of February, 1982? 0.

- I was standing by the drilling rig ZAPATA UGLAND. That's approximately eighteen miles to the north of the drill site of the OCEAN RANGER.
- Now, the this search which commenced right after 3:40 in the morning, you went to assist the other two vessels, did you 0. ever encounter a lifeboat?

Yes, we found first a partially inflated life raft. Α.

Right. Q.

- But both ends were torn out and water was passing through. We attempted to recover it, but there was no way we could. And approximately 7 o'clock in the morning we found an overturned lifeboat with the life ring from the SEAFORTH HIGHLANDER attached to it.
- You say that this lifeboat was overturned and you saw a Q. life ring and it had the name SEFORTH HIGHLANDER on the life. ring?

That's right.

Now, would you tell us in your own words what you saw in conjunction with that lifeboat? ٥.

- There was a large hole in Well, the lifeboat was damaged. Α. the bow of her and she was cracked down the bottom, there
- was a crack in the bottom. Water just passing right through and we made three attempts to recover her but all failed. And as you approached that lifeboat prior to making the first attempt to recover it, did you notice, as you were describing, it was damaged? Yes. There was a large hole in the bow. Q.

Α.

And did you initially see any bodies? Q.

Ā. No.

- And subsequent to that did you see any bodies come out of Q. the lifeboat?
- No, not at that time. While we were involved in trying to A. hook a rope on here there were several bodies came out of the hole in the boat. Hole in the boat. How many bodies would you estimate?

Approximately seven or eight, probably came out through the A. hole in the boat at that time.
Did you finally get the line on the boat?

Q.

Yes, after we got the line on her she came up, when the ship was even, she came up to our rail it was a good view you could see right down through the boat. A.

You could see into the boat? Q.

Α. Yes.

What did you see? Q.

Well, there were several bodies there strapped in by the seat belts they have in the boat. I would say a rough A.

number of maybe twenty.

Number of maybe twenty.

And they were strapped in with the Q. belts?

That's right.

This is ٥.

And you were trying, you had the line on the boat. This is the third attempt you were trying to recover this boat? Yes, and while we were slapping out to wire one got caught in our starboard prop and stopped our starboard engine, just, we tore loose from the boat again and so taking into consideration my own ship's safety, I had to get that rectified first.

And so you let the lifeboat go? No, it broke loose when it got caught in the prop.

Q.

Did you free your propeller? About I would say fifteen, twenty minutes after this.

What happened to that lifeboat, do you know?
It drifted away, is all I can say, in that short of time.
We were going to search again for that boat, but we got a call from the aircraft search and rescue there to proceed to some life rafts, with possible life on board.
Possible life in the life raft?
That's what they told us. So we went to the life rafts.
And did you ever see that lifeboat again?

Q.

Q.

No, not ever.

No, not ever.

And then you have indicated that you took part in the search attempts and this went on until the 16th, did you say?

That's right. We carried on the search and came up with nothing other than on the 16th there was a ship there, a survey ship, JAVA SEA found an overturned lifeboat and she had no means of getting it aboard, so we took her aboard over the etern of our ship.

And this was a lifeboat. What did you do with that lifeboat Α.

What did you do with that lifeboat ٥.

when you took her aboard?

We took it on deck and secured it. We had it checked out to see if there was any bodies inside. There was none.

was damaged, canopy was broken up.
Do you know-whether or not this was the same lifeboat you have described to us that you tried to lift up? Q.

- It was a different lifeboat because the previous boat, the shaft was torn out when we were trying to get the rope on and this one had the shaft and the rudders gone at the Ä. time.
- Captain, you said you were diverted by search and rescue forces from the lifeboat, the one that you had observed with the bodies that you were trying to bring aboard with the word some life rafts with possible signs of life in them. Did you go to those life rafts, sir?
  Yes, we did and we arrived there they were inflated properly, we had made several attempts to take them on board, but the weather conditions just wouldn't permit. We had them up close enough to see there was no life on board. Q.
- had them up close enough to see there was no life on board.

But they were fully inflated, both the body and the canopy Q.

of the life rafts?

- Yes, as far as I can recall right now they were. Captain Allingham, I would like to go back to when you were approaching the OCEAN RANGER and saw her disappeasr on the You gave us a time that you arrived approximately two miles north of the OCEAN RANGER which was 034, could you tell us how long before that the target had disappeared on
- Well, approximately, it is only an approximation in time. I would say she probably disappeared around 3, 3:10 in the morning, 3 o'clock, 3:10.

- All right. You seem quite certain on the 0340. Yes, I remember distinctly arriving at 3:40. That was my A. watch.
- Captain Allingham, as you know the purpose of this hearing is to try to find out what did happen with the OCEAN RANGER, Q. the associated events and what, and we have a responsibility the associated events and what, and we have a responsibility as a Board to make recommendations and hopefully preclude it in the future. We have asked you a whole series of questions to that end. We are trying to find out more about what's happened. I want to ask you now, sir, if you have anything you would like to add. Something you feel that would be of interest to us or germane to the Board or any suggestions, thought, idea, that you might wish to put forward here. In other words, it is your chance, Captain. As to the cause of the OCEAN RANGER going down, I can't make

any statement about the cause, so the only thing, our supply vessels are supposedly supply vessels and not standby vessels are supposedly supply vessels and not standby vessels. As such I would say so because they are not properly equipped for taking people from the water. We haven't got the equipment. And using a supply vessel for a standby vessel as opposed to being for safetywise of the rig personnel. You can take people off by crane quite easily,

but for example, on people, search and rescue operations are

- ٥.
- not made for it.

  Sir, do you think you would have had more success in the search and rescue effort if the victims had been obviously alive, but able to assist in their own rescue?

  It is possible. If they could help themselves the only chance then would be probably you would probably end up some A. of them getting hurt and probably killed in the event of getting them aboard. These boats were not equipped to take bodies over the side or the stern of these boats.
- What's your freeboard, sir? Three feet. Q.
- Α.
- Do you have anything else you would like to have the Board Q. note, sir?
- No, that's about it. A.

### QUESTIONS OF THOMAS W. PURTELL

- Mr. Purtell, what is your present position in the Marine Inspection Office in New Orleans? Q.
- I am the OCS Section Supervisor.
- What does this job constitute? The section is responsible for the inspections of facilities and Mobil offshore drilling units on the outer continental
- Q.
- and Mobil offshore drilling units on the outer continental shelf for the New Orleans inspection zone. Have you had any special training in the course of this assignment in the commercial vessel safety program? I have attended a number of industry-related schools like fiber reinforced plastic, nondestructive testing of wells A. and industry training are probably the major schools. Where did you perform the industry training?
- Q.
- With ODECO. λ.
- Q. When did you start this training?
- The 3rd of November, 1980. And how long did it last?
- Q.
- For 12 months.
- I would like to get for the record some explanation of what industry training is and I hear everyone has a copy of an extract from the Coast Guard Training and Education Manual Instruction, and Mr. Purtell, I would like you to, in the way of describing what industry training is, just read three brief sections here, the first is a Paragraph on Page 280, Q. there is two paragraphs on Page 281, and a paragraph on Page 283.
- "The objectives of the Merchant Marine Industry Training A. Program are to encourage greater cooperation between the industry and the Coast Guard, to broaden the understanding of commercial vessel problems from the operator's point of view and thereby to facilitate a broad administration and supervision of activities related to the Coast Guard's Commercial Vessel Safety Program.

"Concent with the above, this program was inaugurated in 1948 to better qualify young officers as Marine Inspectors by giving them more than a casual understanding of the problems and procedures of a shipping company"

"Trainee relations with industry: The Trainee will be considered to be on a loan to the company as an employee without pay, although not as a replacement for any employee. This training is considered to be on the junior executive level. It is desirable that the trainee study although methods of training and extent of information offered are at the discretion of the sponsoring company.

Referring to this Exhibit No. 30, on Page 2 of the letter dated 2nd November, in Paragraph 5 I notice that you report on the fact that you visited a semi-submersible the OCEAN Q. RANGER and that during the course of your visit that you

"performed an informal inspection for certification to assist the rig in preparation for the formal inspection due in November." I am quoting from your report, is that right?

Due in Dacember, sir.

Right, to clarify that, the informal inspection was for, in preparation for a formal inspection in December. о. λ.

Yes, sir.

Why did you make this informal inspection?
Initially my trip to Newfoundland did not include a visit to
the OCEAN RANGER. Because of the operational schedule of the OCEAN RANGER. Because of the operational schedule of the BEN CCEAN LANCER I was able to fit a visit to the RANGER in the time remaining in my industry training program. So, I didn't visit the OCEAN RANGER with any purpose in mind other than to see the rig operating.

After I arrived at the rig I spent time with the safety man, Bob Mahan and he was trying to get the rig ready for Coast Guard inspection and we decided that probably the easiest way to do it would be for me to go around with him pointing out every possible discrepency I could detect from walking around with him.

Q.

What was the date that you did this? Probably, included four or five days in all, probably between the 15th and 20th of October.

Q. Were you aware when the inspection, the formal Coast Guard inspection was due?

I don't know of the exact date, but it was sometime late in A. December as I recall.

That would have coincided, well, let me ask you this: Were you aware when the time period the Certificate of Inspection was valid?

Yes, sir, I was. As I recall I noted that it was, it fell in between Christmas and New Year's and I commented that scheduling may be difficult in that time frame so they should look into that.

Was the basic purpose of your inspection then, was to assist them in identifying things that would be required to be squared away, be taken care of prior to the formal Coast ο. Guard inspection?

Yes, sir, I was trying to. I was trying to be as nitpicky as possible to take care of as much of the little small things that cause great confusion on inspection day.

Q. Could you describe generally the nature of your inspection, what you did?

Myself and the safety man entered, I think we entered nearly Α. every accessible space on the rig. Again, in my inspection experience I pointed out items that are commonly overlooked or are common discrepencies. This included electrical installations, structural examination, I didn't do any testing of equipment that would interfere with the operation However, I did point out things that would of the vessel. However, I did point out things that would require to be tested when the formal Coast Guard inspection occurred.

0. Did you, during the course of your inspection, did you look at the structural aspects of the unit?

at the structural aspects of the unit?

I looked, when I was descending in the columns that contained the barite tanks I looked at the internal structure in that area. In addition to what was able to be observed from the main deck and ladders to the catwalks around the columns, accessible from the main deck that included, I think, about every column had a catwalk where you could look at the structure of the connection of the Α. columns to the upper deck and I examined every area that was

Q. Did you get into any ballast tanks?

No, sir.

What did you find, did you find anything wrong with that Q.

part of the structure that you looked at? No, sir, I didn't. As a matter of fact, I was surprised at Α. the preserved condition of the structure on the exterior. I noted mentally that the coating job in the shipyard must have been superior and there was not even rust evident.

Are you deck or hull or engine qualified? I was never offered the opportunity to specialize.

was never offered the opportunity to specialize. So, I guess I am a double-ender as they say. For the benefit of the record that is one who works both sides, both the hull and machinery. So, have you investigated or examined, did you say a large number of merchant vessels? ο.

Yes, sir.

And it is based on your physical examination personally of a a. large number of merchant vessels that you drew the conclusions you have just stated about the condition of the OCEAN RANGER?

Α.

Yes, it is. Did you do any hammer testing? Q.

No. sir.

Did you do any audio sounding? Q.

Ã. No, sir.

Q.

Did you do any close-up weld inspections? Just visual examination from over five feet away, sir. Ă.

So, it was a walk around, visual inspection? Q.

Yes, sir.

- res, sir.
  And then is it fair to say then that the type of things that you would have been most likely to notice would have been mismarkings or lint behind the dryer, that sort of thing as opposed to inherent structural flaws, isn't that correct?
  No, sir, I believe that my examination of the upper ٥.
- connections of the hull structure were detailed enough to detect flaws in that area. If they were surface flaws.

Q.

Α. Yes, sir.

But, if they were not surface flaws you would not detect it though, would you? ٥.

No, sir, I would not. And you did not have an opportunity to get down to look at ο. the fittings where the legs and bracings meet between the hulls?

Only what was visible from inside the column, sir. A.

From inside. So, it would be fair to say that what you did was a far cry from the actual final certification inspection ο. that would have been required for a renewal of Certificate of Inspection, isn't that correct?

I believe I completed probably 80 percent of what would have been done at an inspection for certification, sir.

### QUESTIONS OF DONALD R. LEGER

Mr. Leger, would you tell the Board, please, the times of employment you had aboard the OCEAN RANGER, the periods of employment?

Aboard the Ocean Hanger, September of '81 until the latter

Aboard the ocean manger, depressed to the part of January of '82.
Yes, sir, and would you also describe your previous employment as Toolpusher on any other ocean rigs?
I was Toolpusher on the OCEAN VICTORY prior to that from November of '67 until September of '81. ο.

A.

I roughnecked for about four years. I guess then I started drilling. I drilled for five years, I guess. Then I was Toolpusher for, since '75.
Would you tell me the last day that you served as Toolpusher

Q. aboard the OCEAN RANGER?

- It was the latter part of January. I don't remember the Α. date but it was the latter part of January of '82.
  On the OCEAN RANGER there was a Certificate of Inspection on
- 0. there. Do you recall that?

Yes, sir.

This is a Coast Guard Certificate of Inspection. There are certain requirements as to personnel on there. Who on the OCEAN RANGER kept track of the required personnel as far as

the Certificate of Inspection went, do you know? We had a safety man that would look after most of our Α. certificates.

And the certificate made a requirement for a certain amount Q. of lifeboat men, a certain amount of AB's, a certain amount of ordinary seamen on there. Do you recall who they were and how many there were aboard?

Not right offhand, I don't.

Do you ever have to make any requests to the office ashore as to the number of people or the type of qualified people on there in order to comply with the certificate? ٥.

Our people uptown would look at that. λ.

Q. Do you know if they did?

I suspect they did. Α.

٥. When you say uptown, are you referring to the St. John's office?

Yes, sir.

- And normally how would you give the control room operator an order for a list or a trim, what would you tell him? ο. Just tell him which side you wanted him to come down on, was
- it port, starboard, stern, whichever.
  Did you have to tell him whether to pump or to flood or how ٥.
- to move the water? λ. Just tell him which side I wanted to come down on and how
- much. ٥. But you wouldn't have to, I am trying to find out whether
- you told him where to move the water from. No, sir I wouldn't. λ.
- Q. Were you familiar with the Certificate of Inspection itself?
- Ā. Not really.
- Q. Did you know it had an expiration date on it?

Ă.

Yes, sir. Were you Q. familiar with the Coast Guard Regulations

λ.

- were you ramiliar with the Coast Guard Regulations Subchapter I-A concerning mobile drilling units? I don't know if I am or not. I don't know. Okay. These are the Coast Guard Regulations that discuss inspection, design of equipment and operations. Have you ever read them before?
- I have read some of the Coast Guard manuals. A. I don't particularly remember that one.
- Any regulations that tell you about your responsibilities? Ever read any Coast Guard regulations that talk about the ٥. responsibilities of the person in charge?
- Not Coast Guard. have read the ODECO booklet on λ. Ī responsibilities.
- Mr. Leger, I have the Exhibit 18, the OCEAN RANGER Operating Booklet. Are you familiar with this? Have you seen this before or something similar to it? Q.

Similar to it. Α.

- And I am turning to this first page. It says, "Forward". And have you ever read this wording here concerning this statement here? Could you read this sentence on the first ٥.
- page? \*Herein λ. all industrial operations οf Toolpusher designated as the person in charge of the unit. He becomes in charge once the unit is relocated."

Yes. Why don't you read the next paragraph down here. ٥.

- \*The U.S. Coast Guard Regulations states that it is the responsibility of the person in charge to ensure that the provisions of the Certificate of Inspections are adhered to and be fully ...", I don't know them
- Be fully cognizant. I will continue to read here. "Be fully cognizant of the provisions in the Operating Manual required by Paragraph 109.1, the 121 of the regulations that ٥. this booklet has referred to." explain what that means to you? Now, I wonder if you could

On this the person in charge of the rig is in charge of these certificates.

- Okay. And when you were on the OCEAN RANGER I was wondering ٥. if, how, if this had any meaning with respect to your job on the OCEAN RANGER when you were aboard?
- No, sir, the Captain was a licensed man and he took care of these regulations, these certificates. He was a licensed Captain. He was more familiar with these rules and Α. regulations than I was.

Was there any procedure in abandon ship as far as who decided when to actually leave? ٥.

λ.

Myself and the Captain.
Okay. You do this decision jointly then? Q.

A.

Okay. You do this decision jointly then? Yes, sir, depending on conditions. Did you have any, say there was, was there any procedure, any contingency plans or any procedures where maybe part of the people would leave and some would stay aboard or would everybody leave or was :his something that had to be decided depending upon the circumstances? ο.

- Depending upon the circumstances. Who would you imagine would be the last one to leave the OCEAN RANGER if everyone, if they had an emergency such as people had to abandon the unit?
- The last man to leave would probably be the Toolpusher and the Captain.
- ο. Were you familiar with who was in charge of the lifeboats when you were aboard?

A. Yes, sir.

Q.

You are talking about the maintenance of them or what? Α.

No, say the people who would be in command of a lifeboat if they ever had to be used, launched and was responsible for Q. it, say the lifeboatman.

Α. Yes.

٥. Who was responsible for assigning those people?

- while, the Captain was assigned to one lifeboat and I was assigned to another lifeboat and I believe the safety man was assigned to a third boat. I would have to go back over the list. It has been awhile.

  Okay. The lifeboat you were assigned to, were you in charge
- ٥. of the lifeboat or was someone else in charge?
  I believe the Toolpusher was in charge of that particular
- A. lifeboat.
- ο. Did you have a lifeboatman, had you ever lifeboatman test yourself?

No.

Do you have a Coast Guard certificate saying you are a lifeboatman? ο.

No, sir.

If you had a difference of opinion with the Captain, who would make the final decision? ο.

A difference of opinion on what?

- ٥.
- Well, was there any time that the Captain's decision would supercede yours, this is on location now?
  No, sir, when it comes to the ballasting or to the stability of the rig, I always went along with the Captain's recommendation because he was more of a professional at it than I was.
- Could you have countermanded what he said? ٥. In other words, did you have the choice of not accepting what he told you?

Yes.

### QUESTIONS OF KALVIN GERNANDT

- Q. Mr. Gernandt, what's your present occupation?
- Α.

Q.

λ.

- Operations Manager for the ODECO Drilling of Canada.
  And how long have you held that position?
  Since July of '82, '81.
  July of '81. And could you describe to us what your duties Q.
- Operations Manager just in charge of the operations off λ. Newfoundland for the drilling contract for Mobil Company.
- Who would be your immediate subordinates, those that would report to you? ٥.
- The Toolpusher on the rig would be the Toolpusher. A. If it was a marine problem the Captain may be in on the consultation.
- Q. What about the hiring of control room operators? Would you be involved with that at all?

We would interview people to send out to the rig and work as roustabouts or whatever to get acquainted with the rig and if a man was interested in the control room job, there may not be an opening, but we may start training a man. The Α. Master and the control room operator would say this guy's really interested. He likes this type of work. He looks like he may fit well. Take your time and train him. If he worked out then the Captain would write a letter in saying this man may make control room operator.

And the Captain would send a letter in to you? Q.

Or he would, in conversation he would say we are going to look at so and so pretty close. You may have a letter or you may just have ---

Q. Verbal.

Over the radio or at the airport or maybe just passing on to the superintendent and the superintendent would bring it into me.

Q. What about the Toolpusher? Did he have any input in the

selection of a control room operator?

- Well, yes, he would. I would say, yes, he definitely would have some input. He would say this is a good lad, or you know, he has got a clear record, we haven't had any problems with him. The training would come from the Captain in the control room.
- I wonder if you would describe to me how that training took place. What was the normal procedure when you were going 0. place. What was the normal procedure when you were going to, for example, if you were considering a roustabout and he wished to become a control room operator and you felt he had potential, would you describe for us how that training would occur until the time he stands watch by himself?
- If a control room operator, a new man was interested ecoming a control room operator, the industrial Α. ukay. It a control room operator, a new man was interested in becoming a control room operator, the industrial relations representative on board would probably be the first one to know about it because he would be showing training films and having the safety meetings with the Captain, what have you. He would be acquainted with the man knowing he was interested. Follow that with him, tell him, well if you are really interested spend a couple of hours on your off time rather than watching training film there. You want to go down to the control room, maybe, and get some training there on his own time. This would be after his twelve-hour tour. If he showed enough interest and hung in there and really looked like he was interested in doing it, so then we would give him a six-hour tour if we thought we might need a control room operator. We would give him six hours out of his twelve-hour day free if we weren't running a caseing job or something very necessary for him, he would have six hours in the control room. Observe and work in the control room with the control room operator or the Captain or whoever may be in there. From that point on it would just be evaluation by the Barge Master and control room and control room and I.R.R. man bringing his recommendations into the Toolpusher. If a job became available he would have enough experience to probably go in the control room in a matter of months.
- You are indicating to me that a period of time where he worked a portion of the twelve hours, you said six hours total, this would be? ٥.
- The Toolpusher would want him for six A. We would relieve him. hours to do his duties and then for the training, six hours in the control room, you know, was a pretty good day.

Now, that can vary in time. It can be several months before an opening came. It could be four months or six months, but that's just a general training program on board the rig.

We have received testimony that in one case a control room ٥. operator underwent an orientation period. This was where he spent a portion of the twelve hours for one week and then at that point he stood watch on his own, is that the average situation?

No, that wouldn't be an average, but that's a possibility if he had been working several months, a couple of or three hours on his own time, that could be very possible.

Now, would he during this orientation period, would he just be an observer or would he actually manipulate the ballast

control system?

Well, he should have his observing time over with by the time he worked this six hour thing, so only six hours, Α. probably be doing some of the chores, some of the duties. Was this a requirement that was set down?

Q.

- Not written down, but it is what would be safe, what the Captain recommended, what the Toolpusher recommended, you just need somebody to back up if the control room operator got sick. You would need somebody there to help the Captain.
- Now, in the case of a Master, a new Master, as far as training goes, would there be any requirement that he demonstrate knowledge of the ballast system before assuming ο. the duties of a Master?
- A. On that particular rig, no.

Q. What?

Q.

A. Ask that again. I would like to answer that again.

- 0. Okay. If you had a new Master coming aboard, would there be any requirement that prior to his assuming duties as Master that he demonstrate any proficiency with manipulating the ballast control system?
  - Who does he demonstrate this to?

- This is my question; I don't know.

  I don't have that, if he is coming from one of the other rigs, one of the ODECO other rigs, which this Captain did, a Q. A. short briefing with him is about all I could help him with or anyone else. If he has the right papers, he should be qualified to look at the ballast book, study the book and be able to ballast the rig.
- If a Master came aboard, brand new to the OCEAN RANGER would there be any overlap period between his assuming duties and Q. the old Master he is relieving departing the rig? any overlap?
- If it was necessary the old Captain would stay with him, but Α. if he would come as a full Barge Master with experience, no, there wouldn't be any overlap.
- What was the normal case? Was there normally an overlap? Q.

Normally not an overlap.

- Did anyone in your company keep a list of these lifeboat men, those that were designated lifeboat men on the OCEAN RANGER?
- I didn't keep a list of it. I don't know of a list being available. Again, I say that they weren't approved by the U.S. Coast Guard, so I didn't really keep it in their personnel file that they were qualified. Other than the Α. fact that when I interviewed them and when some of the other people interviewed them we made sure we were getting Canadians with some seaman time and qualifications due to the fact it is hard to get both drilling experience and the seaman papers.
- Mr. Gernandt, I would like to go back to the Coast Guard Certificate of Inspection. Who is responsible for keeping Q. that current?

A. The Captain and myself.

Q. And yourself. Do you keep track of when certificates expire?

A.

- Yes, sir. And in the case of the OCEAN RANGER, were you aware that it ٥. had expired?
- A. I was aware that it was run out on December the 27th, 1981.

٥.

And what action did you take? We had began to install a couple of lifeboats. Due to bad weather and what have you we were running a little behind schedule. We had talked with the Coast Guard and had them set up to come up on the 16th day of February when we thought we would have both boats installed and ready for inspection. The reason for the delay was we could not get

our boats in in time for the inspection. We needed them for inspection due to the regulations. It may be a poor excuse, but that's the facts.

Were those new boats required by the Coast Guard? Q.

- There are new regulations that you had to have either the lifeboats, well, actually what the new regulation was was that the life rafts had to have davits and the rafts we had did not have - we figured, I believe ODECO would make a decision here in New Orleans that lifeboats would be much safer than a life raft. We were putting on the two new lifeboats. We could cover all people on board on either side of the rig.
- So the new lifeboats were in lieu of these davit launch life Q. rafts?

That's correct.

And your understanding is that the Master is responsible for ٥. ensuring that the proper number are aboard the OCEAN RANGER?

That's right.

- And if there are the proper number or not, then he is to ٥. inform you?
- He is to inform me and I would get the people there, yes.
- Well, the Certificate of Inspection requires a certain ٥. number of lifeboatmen.

Α.

Lifeboatmen, yes, sir. All right. Would you know if the Toolpusher normally is a ٥. lifeboatman?

He would have some training in it. I don't know if he would hold the papers of being a lifeboatman or not. He may if he Α. got his certificate he would have one. Some have those. We are getting them as fast as we can train them, get them passed we are getting them. Would you know on the OCEAN RANGER was a Toolpusher normally

٥. in charge of the lifeboats?

Yes, he would be in charge of getting people in the λ. lifeboats.

Well then to refine this is it the Captain's responsibility Ω.

in your view merely to remind the people uptown, namely you? Right, that would be if he felt serious enough he could go over my head if it was involving his license. λ.

But, once you know about it or the shore office knows about it it becomes the shore office's responsibility to make the ο. necessary arrangements, doesn't it?

Α. That's correct.

Well, sir. You say the inspection was due the 27th. The 27th of December is when the old certificate actually expired, wasn't it? ο.

That's correct.

And you did not obtain or seek from the Coast Guard an ٥. extension, a formal extension of time for that certificate, did you?

No, sir.

Now, in response to the pressure from the Canadian Provincial Government, I understand that you had to have at the Canadian ο. least 65 percent of you be Canadian nationality and that as part of complying with that pressure and yet trying to have qualified people aboard, you went ahead and hired Canadians with some Canadian approved seaman documents, and then after the fact, after you had already done it, wrote to the Coast Guard to ask whether these people could be considered to fulfill compliance with Coast Guard regulations?

That's incorrect. That letter was written the first of the A. vear.

Q. But you got no answer?

A. I had no answer for that letter.

- And you went ahead and hired the Canadian qualified people? Q.
- That was where the most pressure was coming, that's right. A.

So that was not --Q.

- We wrote a letter to the ABS asking permission to use
- Canadian certified which we received permission to do. The United States Coast Guard did not give you its permission of use of Canadian seamen to fulfill U.S. Coast ٥. Guard requirements, did it?
- They did not give approval or disapproval. A.

#### QUESTIONS OF FRANK JENNINGS

- Mr. Jennings, were you employed on board the OCEAN RANGER? Q.
- λ. Yes, I was.
- Yes, I was. Would you tell us for what period of time and where the OCEAN RANGER was located during your period of employment on board her, the period of time extending from June or July of '76 until November or December of '81. ٥.
- Q. Do you have any professional qualification?
- Por what?
- Or such as a document --- I have an AB's ticket.
- How did you happen to come into ODECO's employ?
- Just saw an ad for a control room operator in the paper at the period when I was looking for a job and I applied for the job and they hired me. What position did they hire you into?
- Q.
- Control room operator.
  - What kind of experience did you have before they hired you? Absolutely none. I didn't know what it was.
- Ă.
- What kind of training did you receive for that job? Q.
- What did you first do then in that you went aboard as a ٥.
- control room operator. Yes, I went on board and went to the control room. I walked down there and the guy that was down there walked out and
- left me with it. Q. How did you learn the job?
- Well, it stretches a point to call it on-the-job training. What happens is you sit down there and if something starts to go wrong, you call somebody and find somebody that knows what it is. Hopefully before a big problem develops. It is only a question of sitting down there and waiting for something to happen and hoping you could find somebody that knew what to do before anything bad went wrong.
- What did who did you go to for help? ٥.
- Originally the captain and the other control room operator that was on board.
- How long did it take you to learn your job on the OCEAN ٥. RANGER?
- Probably it took 18 months to get reasonably competent, 18 λ. calendar months which would have been nine months on board, but I was still learning about it when I left. So, the
- ٥.
- process was still learning about it when I lett. 35, the process was still going on. Well, the point that you thought you were competent, describe what that means then. Well, it means you can handle the day-to-day operations, plus the ballasting up and down from drilling and transit λ. draft or the other way around.
- ο.
- You mean independently without anyone helping you? That's correct. Plus, you have to be familiar with how the alarm systems work and how the barite systems and the other ship's systems work.
- Q.
- Did you have any formal training with respect to that job? I went to a stability school ODECO ran somewhere along the line there for about four days. That would be the extent of the formal training.
- Who did you go with again?
- ODECO ran it, a stability school here in New Orleans. think in '78.
- Other than this did you receive any additional training in Q. stability or stability calculations?
- No, only insofar as I got a few books and read up on it and λ. I took a correspondence course in statics and worked out the problem.
- Were these part of the classroom materials or --- No, they were not. I got them on my own. ٥.

- Well, have you had power, ever been loss of the board? Yes, several times. The valves closed. Q.
- À.
- What were the reasons for loss of power? Q.
- A. I don't know exactly,
- To the board. ο.
- Well, the ship's power came off. We lost the plant. So, we Α.
- had no power except the emergency power. The battery stuff, was there any other reason why power was lost to the board other than the ship's power was lost at the same time? You could lose ship power and get power to the Board. You Q.
- could open those panels up and throw the circuit breaker inside or somebody could throw the circuit breaker up in the engine room. Those are the only two ways I know to lose the power off the board.
- ο. Did you have any experiences when you were in an operating mode when you lost power to the panel?
- A. Yes.
- What was the result? ٥.
- what was the result.
  The valves closed and you just stay where you are until somebody gets the power back.
  Did this include loss of power to the pump? A.
- Q.
- Ă. Yes.
- Q. When power was restored did you have to do anything?
- If you wanted to pump fuel you had to go down into the hulls and reset a circuit breaker down in the hull because when you lose power it would throw a split tie off down there.

If you lose power, if we are just talking about ballast system, all you had to do was open the valves up and turn the pumps on.

- So, you just had to restore what you had before? That's correct. Q.
- With respect to the control panel itself, could you without electric power operate the valves that controlled air to the ballast valves?
- I didn't know about that until yesterday. There was a way, Α. but I didn't know about it until vesterday.
- It was something you had never done? I had never done it, no. ο.
- Α.
- Never seen it done? Q.
- Never seen it done. λ.
- Q. Who was you immediate supervisor?
- I am not sure. I am really not sure how it was officially organized even after five years. Well, why is that? Would you get orders from different
- ٥. people then?
- Yes, you got orders from different people and sometimes they were contradictary. It really is a matter of kind of trying Α. something and waiting to see who yelled and if nobody yelled I really don't know how it was officially it was good. organized.
- Q. Who might yell at you?
- Anybody who felt like it. I guess the control room operators were very low on the old totem pole, you know. Α.
- ٥. Well, who would you commonly say, in the course of a week get orders from to do something? How many?
- Toolpushers, captains, drillers, anybody that wanted the vessel listed one way or another for anything. A.
- ٥.
- wester listed one way or another for anything. Well, if you were to take supplies aboard, would someone say: Get ready to take supplies aboard and you do it? That is the way that would normally work. Sometimes you didn't get very much notice. I can recall several times looking out the porthole and noticing we had a supply boat tied up and they were passing a line down to him. So, I called the crane operator and asked him which line he was Passing down so I could line up for drill water, whatever. You got anywhere from a lot of notice to no notice on these types of things. It came from, I don't know, the toolpusher, drillers, captain, other control room operators, roustabouts, whoever happened to notice it, the mud engineer.

- ٥. Other than the operating manual you had there, did you have any other instructions concerning your job that provided on the unit?
- No. So, in learning your job you - well, who on the unit trained ο. you?
- In the original case the captain that brought it over and the control room operator that was on it when it came over from Japan.
- Q. During your experience on the OCEAN RANGER did you make any mistakes while you were operating the controls? A great many mistakes, probably more than anybody else.
- Α.
- How serious were these mistakes? Q.
- Well, they weren't very serious insofar as they didn't cause Ā. any damage or any down time or anything like that
- Q.
- Well, what kind of problems did you get yourself into?
  Working the control board wrong and putting water where you didn't want it to go, where it shouldn't be going or taking water from the wrong place, setting up the control board wrong. I used to leave S20 closed a lot when I thought was pumping out of the hole which wouldn't move any water out of the hole, just get the pump hot, really.
- These mistakes were not caused, were they caused by lack of 0.
- knowledge or just by error? In the original first, maybe year or so it was lack of knowledge, was a big factor because I wasn't really sure A.
- 0.
- what to do. Later it was probably just a simple error. How did you keep these things under control and if you ---Just have to be real careful and be aware of what should be happening when, for example, you pump from a certain combination of tanks. If it isn't happening there is something going wrong.
- What is the worst listing condition that heppened as a result of, maybe inadvertent actions on your part? ٥.
- Probably a degree or so, maybe two. A.
- Q. So, these were minor operational errors that didn't amount to any consequent ---
- No, never caused any damage or any down time or anything Α. like that that I know about.
- During the five years you were aboard, how many captains served on the OCEAN RANGER? ٥.
- A whole bunch, somewhere around 15 or 20.
- Mr. Jennings, you testified earlier about the fact that you received no formal training before you went aboard the OCEAN RANGER as a control room operator and that you had no break-in period. Was that unique to you in your personal experience?
- In my personal experience it was not unique.
  What other incidents do you know of in that nature, essentially untrained operator coming aboard with no break-in period?
- I was relieved by a guy who came on board and he was so shook up by the fact that he was supposed to walk in and drive, start operating it he left the rig the next day. I don't know if he quit or just went to another rig or another job.
- Now, you did tell us that you attended a four-day stability school with ODECO. Just to put that in context of time, Q. what was the month and year you went aboard the OCEAN RANGER to begin working as an operator?
- It would be June or July of '76.
- What was the month and year when you got for the first time ٥.
- any formal training on stability control?
  I would have to look. It was probably in 1978, I don't remember. I wouldn't recall the month at all. A.
- So, somewhere around a year and a half or two years afterward you started working with the responsibility for ο. that on board the vessel, is that correct?
- Just about that, yes.

  Now, you did tell us that you did some reading on your own, you gave us the names of some books. Was that required of ٥. you by ODECO?

- A. No, it was not.
- Q. Was it even suggested to you by ODECO?
- Α. No.
- Do you know whether at any time during your tenure with ODECO that there were any formal prerequisites for hiring as ٥. a control room operator?
- No, I thought the first warm body available just got sent A. out.
- And to your knowledge was there any formal training program? Q. The only thing I know about in the way of formal training would be the stability school I went to. Α.
- Well, you did tell us that there were times when you would ٥. be told in effect to break in somebody who had come down on his own free time.
- That's correct, sir.
- Were you ever given instructions by ODECO as to the specific ٥. areas within which you were to train these people, specific tasks for which they were to be trained?
- No, the instructions were very general, you know, just train Α. this guy.
- Now, you have told us about the break-in or lack of break-in ٥. period or overlap for control room operators. Did you have opportunity to make any personal observations about any overlap or break-in periods for relief captains?
- Yes, there wasn't one. One guy walked off and the other guy walked on. The break-in period occurred when they crossed on the heliport, I suppose.
- Do you know whether all captains that came aboard the OCEAN RANGER during your tenure had had prior experience on semi-submersibles?
- I know all of them had not had prior experience.
- So, the first time from your observation they walked aboard their first semisubmersible and waved goodbye to the captain Q. they were relieving? That's correct.
- λ.

#### OCEAN RANGER BIOGRAPHIES

#### 1) Barge Master

Clarence Eugene Hauss U.S. Citizen

Experience

Barge Master Ocean Victory Barge Master Ocean Bounty Barge Master Ocean Ranger

Dates on Ocean Ranger - 1/26/82 - 2/15/82 - Barge Master

Licensed as Master of steam & motor vessels and any gross tons upon oceans; Radar Observer.

Employment History

Second Officer Bethlehem Steel Corp.
Relief Master 12/56 - 1/71
Cacman Steamship Corp.
1/21/66-4/16/69

Stevedore Superintendent - Ranney Scarlett 2/73 - 3/73

Education

University of Maryland - Engineering 1943-43 USMS Fort Trumbull, Conn: Marine Officer Training 1945-1946

#### Toolpusher

Benjamin Kent Thompson U.S. Citizen

Experience

Floorman - D/B Ocean Driller
Ocean Explorer
Margaret
Ocean Champion
Derrickman Ocean Champion
Driller Ocean Patriot
Ocean Champion
Ocean Pride

Ocean Pride
Ocean Patriot
Mr. Charlie
Toolpusher Ocean Patriot
Ocean Champion
St. Louis

Barge "A" Ocean Runger

Dates on Ocean Ranger - 1/15/81 - 2/15/82 - Toolpusher

Able Bodied Seaman Application - 12/11/79

Employment History

Roughneck & Driller Noble Drilling Company

Education

Grade School Toolpusher Level - ODECO Training Course 8/6/81 The Prevention of Oil & Gas Well Blowouts -

University of Oklahoma - 2/29/77

Rig Team Management Program - ODECO Training - 10/2/79 ODECO Training - Comprehensive Well Control Training

#### Control Room Operators

Domenic Hugh Dyke Canadian Citizen

Experience

Roustabout 3 - 12/22/80 Roustabout 2 - 1/7/81 Roustabout 1 - 3/15/81

Control Room Operator - 12/31/81

Trained for Control Room Operator since employment on Ranger 12/22/80

No record of any marine licenses

Employment History

Roustabout Roustabout

Sedco 706 - 5/80

Crosby Offshore - 4/79 - 10/79

Education

3 years - Thistletown Waterloo University, Ontario - 3 years D/D not graduate

Donald Joseph Rathburn

U.S. Citizen

Experience on Ocean Ranger

Shift Entry Roustabout Roustabout 2 Control Room Operator

Ocean Ranger- 1/19/80-3/23/80

Ocean Ranger-Ocean Ranger- 3/23/80-2/15/82

No marine licenses on file

Employment History Self-employed

Lobster Boat

Education

Bryant College - 6/71 - 2/72

ODECO Training - Beginning Roustabout - 2/80 ODECO Training - Intermediate Roustabout - 3/80

Electrician

Thomas R. Donlon U.S. Citizen

Experience

Electrician

Ocean Ranger Ocean Bounty Ocean Victory

Time on Ocean Ranger

4/8/77 - 12/30/79 1/16/80 - 5/5/81 5/21/81 - 2/15/82

No marine licenses on file

Education

Sumter Area Technical College - marketing Cutler Hammer - Motor Control School - 1976

Paul William Bursey Canadian Citizen

Had been on Ocean Ranger since 5/7/81

Employment History
Marine Electrician

Canadian National (Marine Division)

Education

High School 1 year Vocational Electrical School College of Trades & Industry - Electronics Course - 4/75

#### Rig Mechanic

George Leroy Gandy
U.S. Citizen

Experience

Rig Mechanic

Ocean Ranger Ocean Lancer Ocean Victory Ocean Prospector

Time on Ocean Ranger -Rig Mechanic - 2/11/77 - 10/3/77 3/19/80 - 2/15/82

Merchant Mariners Document for Ordinary Seaman, wiper

**Employment History** 

Diesel Operator, Motorman, Meco Operator, Baroid & Cement Pumper, Hydraulic Mechanic, Barge Captain, Jackmaster in Gulf of Mexico, Mexico, North Sea, and West Africa from 1958 through 1973 - Reading & Bates

Education High School

#### Other Biographies

Karl Thomas Nehring U.S. Citizen

Experience

Captain Ocean Endeavor
Barge Master Ocean Ranger
Barge Master Ocean Bounty
Barge Master Ocean Ranger
2nd Mate D/S Hurricane

Time on Ocean Ranger -

Barge Master 6/20/80 - 7/29/80 Barge Master 3/6/81 - 1/14/82

Licensed as Master of Steam or motor vessels of any gross tons upon oceans; Radar Observer 2/1/77

Education

High school Basic Radar & Similar course U.S. Department of Commerce - 6/23/76

# Geoffrey B. Dilks U.S. Citizen

Experience

D/B Ocean Bounty 9/1/78 - 7/5/79 D/B Ocean Ranger 7/6/79 - 3/15/82 Captain Captain Barge Master D/B Ocean Victory 3/16/82 - Pres.

Time on Ocean Ranger - 7/6/79 - 2/15/82

Licensed as master of Ocean Steam & Motor vessels of any gross tons; 1st class pilot of steam & motor vessels of any gross tons upon Delaware Bay & River; Radar Observer

#### Employment History

Navy - 1940 - 1946 ε/63 - 1/70 - Mate/Captain - Army Engineer Sea-going Hopper Dredge 6/77 - 11/77 - Captain, Offshore Supply Boat

5/78 - 9/78 - Captain on tug, oil barges 12/71 - 5/77 - Rig moving

#### Education

Rutgers University - 9/47 - 6/48 - Business Admin.

## Frank M. Jennings

U.S. Citizen

Ocean Ranger Control Room Operator - 6/26/76 - 12/4/81

No marine license on file

#### **Employment History**

Seismic Analyst - 7/69 - 11/70

Operation, maintenance & repair of digital und analog electronic equipment - 12/70 - 11/73 (this included power supplies, controllers, computers, tape transports, doppler sonar, Loran-C, Gyro compass, Auto-Pilot.

Seismic Analyst/Technician on remote processing site -12/73 - 12/74

Operation & maintenance of field electrical equipment -6/75 - 6/26/76

#### Education

Middle Tennessee State Univ. - 1/69 - B.A. Mathematics ODECO Training Course - Barge Stability - 2/27/78

# Clifford L. Himes U.S. Citizen

Ocean Ranger Control Room Operator - 12/1/77 - 2/15/82

#### Experience

Shift Roustabout D/B Ocean King Shift Roustabout Ocean Scout Crane Room Operator Ocean Scout Control Room Operator Ocean Ranger Control Room Operator Ocean Ranger

Able Bodies Seaman application - 5/28/81

#### Education

Central Texas College - 9/72 - 5/73 - Business Admin. ODECO Training Course - Barge Stability- 5/15/78 - 7/78 Offshore Crane Operations & maintenance - 7/20/81

#### Bruce C. Porter Canadian Citizen

Experience on Ocean Ranger

Roustabout 3 7/2/81 Roustabout 2 9/17/81 Roustabout 1 10/29/81 Control Room Oper. 12/17/81

Education

Memorial Univ. of St. John's; B.A. 5/69 in Religious Studies McMaster Univ., Hamilton, Ontario - M.A. in Religious Studies & social thought - 5/71

Ronald A. Hoar U.S. Citizen

Ocean Ranger Control Room Operator - 12/15/80 - 12/14/81

Experience

Shift Entry Roustabout Ocean Victory
Roustabout Ocean Victory
Control Room Operator Ocean Ranger
Control Room Operator Ocean Voyager
Control Room Operator Ocean Endeavor

Education High School

Donald R. Leger U.S. Citizen

Experience

Floorman 1/27/66 - 11/4/66 Derrickman 11/5/66 - 11/11/68 Asst. Toolpusher 11/15/74 - 1/19/75 Toolpusher 1/20/75 - 2/3/82

Jimmie E. Counts U.S. Citizen

Experience

 Driller
 9/9/73 - 4/3/75

 Asst. Toolpusher
 4/4/75 - 5/13/76

 Toolpusher
 6/29/78 - 11/7/80

 Driller
 11/8/80 - 12/18/80

 Toolpusher
 12/19/80 - 10/4/81

 Superintendent
 11/5/81 - 3/25/82

 Toolpusher
 3/26/82 - Present



# PERSONAL MEDIFICATION OF TRANSPORTATION RECEIVED STATES COAST GUARD

DEC 1 / 1969

Address reply to COMMANDANT (HVI-2) US COAST GUARD WASHINGTON. D.C. 20591

15011

NTC 12-69 1 2 DEC 1969

MAVIGATION AND VESSEL-INSPECTION CIRCULAR No. 12-69

Subj: Special Examination In Lieu of Drydosking for Large Mobile Drilling Units

- 1. Purpose. To set forth procedures to be used when conducting an examination in lieu of drydocking on large mobile drilling units. This circular does not establish a new requirement but is intended to provide uniform procedures for an existing requirement.
- 2. <u>Discussion</u>. In recent years, certain types of mobile drilling units have been built and certificated which are so large that they cannot be handled by any existing drydock facility. These units have not been exempted from the routine drydock requirements of the regulations under which they were certificated. In view of the above, a special examination is required to provide the information normally obtained during a drydock examination,
- 3. Action. Special examinations in lieu of drydocking will be canducted in accordance with the procedures set forth in enclosure (1) insofar as they are applicable to the unit being examined. The interval between examinations will be as specified in the applicable regulations. Until such time as the Coast Guard offers inspection service at overseas locations, it is the responsibility of the owner to conduct an examination in ascordance with the procedures set forth herein in cases where a drydock examination becomes due while the vessel is operating at an overseas location. The results of this owner conducted examination shall be entered in the vessel's log book.

sewe. J. B. McCARTY, Jr.

Captain, U.S. Coast Guard Acting Chief, Office of Merchant Marine Safety

Encl: (1) Examination Procedures

Dist: (SDL No. 89)

A: None

D: n(45); c(10); q(6); eg(3); bp(1)
C: m(4); o(2)
D: 1(2); k(1)
E: o(2)

None

List 112-155

- ENCLOSURE (1) TO NAVIGATION AND VESSEL DESPECTION CLUCULAR NO. 12-6

#### MIAHINATION PROCEDURES

1 2 DEC 1969

- 1. The purpose of an examination of the underwater body is to make an evaluation of the condition of the hull and its fittings. Of primary concern are the effects of corrosion, and hull damage. If these are not detected and corrective action taken, they could lead to reduced strength and loss of hull integrity. Insofar as is practicable, the special examination in lieu of drydocking shall be conducted using the same procedures as in a regular drydocking examination. The guidelines contained in the current Notes on Inspection and Repair of Steel Mulls are applicable. Special procedures necessary because of the nature of these vessels are discussed below.
- 2. In lieu of drydocking, large mobile drilling units shall be placed in their lightest draft condition consistent with adequate stability. The area above this materline shall be examined by traditional means. Farticular attention shall be paid to areas of high stress such as joints of structural memoers. The remaining submerged area of the hull shall be inspected by independent divers acceptable to the CCMI. In addition, underwater television shall be employed to give a visual presentation to the inspector. A permanent magnetic tape record of the TV presentation shall be retained, by the owner, until the next examination. The hull shall be cleaned to the degree necessary to allow an adequate determination of the hull condition. The underwater area of the hull shall be thickness gauged to the degree necessary for the CCMI to ascertain the condition of the hull. This gauging may be acceptable either by underwater ultrasonic testing, or by ultrasonic testing internally. The method and procedures used in the ultrasonic gauging shall be acceptable to the CCMI. Fittings which penetrate the hull shall be given the same examination as is accomplished at a regular drydocking. All internal compartments shall be entered and visually examined.
- 3. If acceptable to the OCHI, at every second examination, the owner may have the examination conducted while the unit is at its working draft. This examination shall be conducted as above with the following exceptions:
- (a) The hull gauging will, of necessity, have to be accomplished using underwater ultrasonic techniques.
- (b) In addition, a representative number of welds in high stress areas shall be examined using underwater ultrasonic techniques acceptable to the OCHI. Records of indications, such as sketches of detected flaws, will be maintained in sufficient form to be used for comparative purposed during subsequent inspections.
- (c) The only internal compartments required to be entered and examined at this examination will be those which can be made accessible in the working condition.
- 4. Prior to the examination, the owner shall submit an inspection plan to the CCMI for his approval. The plan shall set forth the draft at which the unit is to be examined, the divers to be used, method of visual presentation, method of underwater cleaning, method of gauging, the locations that are to be gauged, the hull fittings to be opened, compartments to be opened for

ENCLOSURE (1) TO NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 12-69
1 2 DEC 569

examination, high stress areas to be examined, and the method of examining welds in high stress areas. The OCMI may request the assistance of the appropriate MMT Office in reviewing the inspection plan.

- 5. Prior to the conducting of non-destructive tests, the inspector shall satisfy himself as to the calibration of the equipment being used. Comparison with the original plans and previous test results will be necessary to determine criteria upon which to base acceptance or rejection of hull conditions at the time of inspection. Therefore, the OCMI shall retain the results of all tests conducted.
- 6. Inammuch as this examination requires more planning and discussion between the owner and the CCMI, than does a routine drydocking, arrangements should be made as far in advance as possible. If repairs to the underwater hull are required, it is the responsibility of the owner to propose an acceptable method of repair.

(Excerpts - Full Booklet Available from Committee

# OCEAN RANGER

# BOOKLET OF OPERATING CONDITIONS

APPRBVETO
Subject to comments in
CCGD8 (MMT) letter of

JAN 6 1981

Chief Marchant Marine Technical Branch By Direction of Commender Elichte Casel Grand District

PREPARED BY ODECO ENGINEERS, INC.

#### BOOKLET OF OPERATING CONDITIONS

#### FOREWORD

THIS BOOKLET IS FOR THE GUIDANCE OF THE OPERATING PERSONNEL\*
AND IS A REQUIREMENT FOR CLASSIFICATION BY THE AMERICAN
DUREAU OF SHIPPING AND FOR ISSUANCE OF A LOAD LINE.

THIS MODIFIED BOOKLET IS A REQUIREMENT ALSO OF THE UNITED STATES COAST GUARD UPON U.S. REGISTRY.

#### THE CONTENTS ARE INTENDED:

- I. To AID THE OPERATING PERSONNEL IN MAINTAINING THE BARGE IN A LEVEL AND STABLE ATTITUDE BY INDICATING ACCEPTABLE FORMS OF LOADING FOR NORMAL CONDITIONS AND DETAILING CALCULATION METHODS.
- II. To INDICATE MEASURES NECESSARY FOR SAFE OPERATION OF THE BARGE, I.E., PREPARATION FOR TRANSIT, DRILL-ING. MOORING, STORM, ETC.
- III. TO INDICATE REMEDIAL MEASURES AND PRECAUTIONS IN CASE OF SERIOUS DAMAGE.

\*The barge master is the "barge mover" and is in complete charge of the unit while it is being prepared for a move and is in the process of moving. The barge master is responsible for the stability of the unit at all times.

DURING ALL INDUSTRIAL OPERATIONS, THE TOOLPUSHER IS DESIGNATED AS THE PERSON IN CHARGE OF THE UNIT. HE BECOMES PERSON IN CHARGE ONCE THE UNIT IS RELOCATED.

THE U.S. COAST GUARD REGULATIONS STATE THAT IT IS THE RES-PONSIBILITY OF THE PERSON IN CHARGE TO

- (1) Ensure that the provisions of the Certificate of Inspection are ad-
- hered to: and

  (2) Be fully cognizant of the provisions in the operating manual required by § 109.121 (of the regulations, i.e. this booklet is referred to)

## SECTION INDEX

#### SECTION

#### DATA PROVIDED

- A. PRINCIPAL PARTICULARS OF BARGE AND LIMITS OF SERVICE
- B. VERIFICATION OF LIGHTWEIGHT AND CENTRE OF GRAVITY\*
- C. Instructions for Calculating Stability and for Acceptable Loading under Hormal Conditions\*
- D. BLANK FORMS FOR CALCULATING STABILITY IN ANY LONDITION
- E. SAMPLE STABILITY CALCULATIONS FOR DRILLING. TRANSIT AND SAFETY CONDITIONS\*
- F. MAXIMUM ALLOWABLE KG (CORRECTED FOR FREE SURFACE)
- G. TANK CALIBRATIONS\*
- H. HYDROSTATIC PROPERTIES
- I. ARRANGEMENT AND CAPACITY PLANS\*
- J. CLOSURES OF WATERTIGHT COMPARTMENTS AND PUMPING ARRANGEMENTS\*
- K. MEASURES FOR SAFE OPERATION
- L. JAMAGE FLOODING COUNTERMEASURES
- 11. HOORING ARRANGEMENT, PROCEDURES AND CHAIN TENSION DATA
- Z. ALPHABETICAL INDEX

<sup>\*</sup> SEE INDIVIDUAL SECTION INDEX

#### VESSEL CHARACTERISTICS

LENGTH OVERALL (OVER ANCHOR BOLSTERS)
LENGTH MLD. BOW TO CENTER OF RUDDER STOCK 393.75 FEET 120.0 M
BEAM OVERALL (OVER ANCHOR BOLSTERS)
BEAM (MOULDED)
DEPTH TO UNDER-SIDE OF UPPER HULL GIRDERS 130.0 FEET 39.624 M
DEPTH TO BOTTOM OF LOWER DECK
DEPTH TO TOP OF UPPER DECK 151.5 FEET 46.177 M
DEPTH TO DRILL FLOOR
DEPTH TO TOP OF DERRICK (ABOUT)
MAXIMUM OPERATING DRAFT (AFLOAT)
MINIMUM OPERATING DRAFT (AFLOAT)
MAXIMUM TRANSIT DRAFT
CLASS: AMERICAN BUREAU OF SHIPPING AMS + A1(4) COLUMN STABILIZED DRILLING UNIT
UNRESTRICTED OPERATION IN FLOATING CONDITIONS
OPERATING WATER DEPTH (RATED WITH 1,650 FT. CHAIN & 5,600 FT. WIRE) 1,500 FEET 457.2 M
OPERATING WATER DEPTH (RATED WITH 3,100 FT. CHAIN & 5,600 FT. WIRE) 3,000 FEET 914.4 M
· LIGHTWEIGHT AND CENTRE  SECTION B SEE PAGE B7
ENVIRONMENTAL APPROVAL FOR STRUCTURE
ENVIRONMENTAL LOADS ON ANCHOR CHAIN SEE SECTION M

# 3

# ENVIRONMENTAL CONDITIONS FOR WHICH THE STRUCTURE OF THE UNIT HAS BEEN APPROVED BY A.B.S.:-

DRAFT	WAVE HEIGHT	PERIOD	CURRENT	WIND VELOCITY	LIVE DECK LOAD
55 FT80 FT.	110 FT.	15 SEC.	3 КИОТ	100 KNOT	4000 L.TONS
55 FT80 FT.	. 65 FT.	9 SEC.	3 КНОТ	100 KNOT	4000 L.TONS

TRANSIT MODE - See Page K 1, Par. (1) and (2c), and Page K 3 for Ballasting Instructions to Counter Severe Motions.

DRAFT LIVE DECK LOAD

UP TO 30 FT. 3650 L.TONS

ALL MODES - Steel Structure suitable for temperatures not less than -30°C.

PLAN ALL	JAN STEAT ON ATTEM 19, 1976
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5	Witnessed by:
	i. Easer Surveyor to the Avernous Bureau
	FOR APPROVAL
	APR 23 '97E  STEL STRUTES RESENDE LEARNERT
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G16%0)	APPROVED Klimennya
	DEAWN 7 Malayana   RESULTS OF LICTLINES SECRETARY  SCALE   DEAWING NO.   P. M. P.
	241011 (M-7), G-1012  HIROSHIMA SHIPYARD & ENGINE WORKS DRAWN 427, 19, 175 ISSUED

<sup>\*</sup> Modified for Approval by obsert Engineers line, and in suit "Booklet of Operating Conditions" as Section B of Same.

Note: metric units generally used in Section B,

Except on page B 7

OCEAN RANGER

EMERGENCY PROCEDURES

ODECO DRILLING OF CANADA, LITT

Excertis from Than

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Section 1	Introduction
Section 2	Responsibilities
Section 3	Fire
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3.2	Fire Drills
3.3	Fire Appliances
3.4	Action in Event of Fir-
3.5	General
٦. ٥	Escape Routes
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4.2.	Crash Landing in Rig or Datching Near Rig (advance warning)
4.3	Crash Landing or Ditching Near Rig (no advance warning)
Section 5	Man Overboard
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11.6	Securing Well because of Danger from Iceberg Scouring the Bottom
11.7	Plans for Training Personnel and for Drills

#### O. RANGER EMERGENCY PROCEDURES

#### SECTION I INTRODUCTION

#### 1.1 OSJECTIVE

The objective of this manual is to provide Odeco's Toolpusher with guidelines for procedures in case of severe emergency. It is recognized that every situation will require to be dealt with in accord with conditions prevailing at the time and that those persons in command will have to use their initiative on action to be taken.

#### 1.2 - DRILLS -

Each paragraph, where appropriate, instructs that drills are to be carried out at certain intervals and recorded in the Occan Runger's Log Book. Such drills in addition to normal blowout prevention drills are mandatory.

#### 1.3 EQUIPMENT CHECKS

Each paragraph instructs on checking of safety equipment. Such checks are mandatory and shall be recorded as carried out in the Ocean Ranger's Log Book. The alarm system should be checked at each drill and technical performance checked at least every 14 days.

#### 1.4 OTHER SAFETY PROCEDURES

Safe working procedures are laid down in the Odeco Drilling of . Canada Safety Manual, a copy of which should be given to every employee. Other regulations regarding Safety, Health, and Welfare will be posted as required by Government Order on the Notice Scard in the Main Accommodation passageway.

#### 1.5 ALTERATIONS TO PROCEDURES

 $\rm No$  alteration or addition should be made without the approval of the Ocean Ranger's Operational Manager

#### 1.6 TRAINING OF PERSONNEL

All personnel on board the rig are to familiarize themselves with the location of equipment and their station in event of emergency. The Safety Engineer (I.R.R.) will familiarize all personnel with safety equipment.

#### 1.7 VISITORS

Visitors should be requested to read the master list (Station Bill), familiarize themselves with their assembly point in case of emergency and acknowledge their understanding by signing the Visitor's Register. The Safety Engineer (I R.R.) will familiarize all visitors with safety equipment and obtain signatures.

#### 1.8 COMMUNICATIONS

In addition to the basic alarm signal Odeco's Toolpusher should pass information to all personnel as soon as possible via the public address system. It is important to make all personnel aware of the nature of the emergency and what action is to be taken. Use of the public address system should be practiced at all drills

#### SECTION 2 PESPONSIBILITIES

#### 2 1 OVERALL RESPONSIBILITY

Odeco's Toolpusher has overall responsibility for all personnel safety and safety of the drilling unit.

#### 2.2 DESPLAY OF ODECO'S TOOLPUSHER'S NAME

The name of the Toolpusher on duty is prominently displayed on a board in the Messroom.

#### SECTION 3 FIRE

#### 3.1 ALARM

Alarm indicating a substantial fire on board the rig is given by sounding of General Alarm for 15 second bursts with 5 second silent intervals. Location of Alarm Buttons are indicated on the Safety Plan in the main accommodation passageway.

#### 3.2 FIRE DRILLS

- 3.2.1 Fire drills shall be conducted not less than once per week.
- 3.2.2 All personnel are to respond to fire drills.
- 3.2.3 The Station Bill indicates where each man shall go and the action he should take. Life jackets shall be put on.
- 3.2.4 The Standby Boat shall be advised and will proceed to the immediate vicinity of the rig prepared to give assistance.
- 3.2.5 The Safety Engineer will don breathing apparatus and prepare the oxygen resuscitator for use.
- 3.2.6 Centrol Room Operator off duty will don breathing apparatus and stand by at his station.
- 3.2.7 One person designated by the Odeco's Toolpusher shall don the protective suit and stand by at the side of the Helicopter Deck.
- 3.2.8 Odeco's Toolpusher may appoint Fire Fighting Teams who will receive special training and be allocated to designated stations. Notice of such teams and their posts in event of fire will be posted on the Installation Notice Board.

#### SECTION 5 'MAN OVERBOARD"

- 5.1 ALARM
  A sounding of General Clarm for 15 second bursts with 5 second milens intervals. Location of Alarm Buttons are indicated on the Safety Plan in the main accommodation passageway.
- 5.2 ACTION IN EVENT OF "MAN OVERBOARD"
- 5.2.1 Person observing incident to keep close observation of man who has fallen overboard and to shout "man overboard".
- 5.2.2. Person hearing observer shout to sound General Alarm as for fire, then to give assistance to observer.
- 5.2.3 Launch a lifebuov as a marker.
- 5.2.4 Call Stand-by Vessel to assist.
- 5.2.5 Barge Master to clear rescue boat for launding and alert crew.
- 5.2.6 Radio operator to call for rescue helicopter and call vessels in vicinity if necessary.
- 5.2.7 Alert Crane drivers.
- 5.2.8 Prepare personnel basket for use.
- 5.2.9 Alort Safety Engineer.
- 5.2.10 Any person having fallen overboard will, after being recovered, be sent ashore as soon as possible for a complete medical checkup.

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### SECTION . STYPRE STORM COMPLICON

#### 6.1 GENERAL.

#### 6.2 FISPARATIONS FOR STORMS

Towere storm measures for dritting and transit modes:

- Particular attention must be paid to weather forecasts at all times
- Drill water may be drained to lower hull tanks in event of severe storm if necessary.
- All deck leads and the derrick items should be secured. The traveling block should be tied to the rotary beams and a strain of 30 000 lbs over-weight taken.
- All equalizing valves on mud pits to be closed
- All equalizing valves on deck tanks must be closed.
  All watertight doors and weather doors to houses must be closed.

#### 6 3 SEVERE STORM MEASURES - IN TRANSIT ONLY

If the motion of the barge while on a major ocean tow exceeds that indicated by "curve of critical angles and periods of roll and pitch" located in A B.S. Stability Booklet, the barge should be ballasted down to survival draft and/or change rig direction, in order to reduce the notion and structural stresses. The rig's structure is the limiting factor. Similar action should be taken if excessive stapping or vitration is experienced on the rig.

#### 6 4 SEVERE STORM MEASURES - BALGASTED ON LOCATION ONLY

- After essential pumping has been completed the W.T. covers to Propulsion Pump Room vents should be closed.
- Under exceptionally severe storm conditions the barge should deballast to survival draft as per A.B.S. Stability Booklets calculations to increase air gap below deck.

#### 6.5 CRITERIA FOR SUSPENSION OF DRILLING

#### PI'RPOSE

Each vessel has its own specific way of reacting to given storm conditions Furthermore no two rigs ever have the same under-water equipment package. Therefore no hard and fast rules can

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he laid down for coping with heavy weather. To a large extent the operating of a rig with maximum safety and minimum nondrilling time depends on the skill, experience and judgement of the Operator and Contractors personnel aboard. The Heavy Weather Policy is poverned by four main criteria.

- 1. Minimize the risk to personnel
- 2. Minimize the storm damage to the vessel.
- 3. Minimize storm damage to underwater equipment.
- 4 At all times to ensure the security of the well, thus minimizing the possibility of pollution.

There are three Phases to the Heavy Weather Policy:

- Phase 1 Stop drilling operations and hang off drill string
- Phase 2 Disconnect the Marine Riser
- Phase 3 Evacuation of Drilling vessel

#### b. PHASE 1 - HANGING OFF

As a general rule, if any of the following criteria are reached, drilling operations will be suspended and the drill string hung off in the well head:

- Vessel motions and/or prevailing weather conditions are such that it becomes difficult and/or hazardous to personnel to make connections.
- (2) The significant heave of the rotary table reaches 6 feet and/or maximum heave reaches 10 feet.
- (3) The maximum angle of the lower ball joint reaches 4 degrees.
- (4) The mean line tension of the highest loaded anchor reaches 75% of the test tension

#### c. PHASE II - DISCONNECTING

The consequences of disconnecting too late or not at all can be disastrous. On the other hand, disconnecting too early will result in a loss of drilling time. In the long run this loss is not as expensive as the cost for replacing the riser system.

The marine riser should be disconnected from the B.O.P. stack whenever the following criteria are reached, or whenever the Operator Toolpusher or Odeco's Toolpusher has reason to believe they will be reached and/or exceeded in the near future.

- (i) The significant heave of the rotary table reaches 8-10 feet, ind/or the maximum heave reaches 15 feet with an expected further deterioration of the weather.
- (2) The maximum angle of the lower ball joint approached 10 degrees
- (3) The mean line tension of the highest loaded anchor reaches half of the chain/cable break strength.

NOTE: In good holding ground the anchors may be able to hold considerably more than the test tension which is limited by the pull available at the winches.

NOTE: After having experienced a bad spell of weather, consideration should be given to pulling the marine riser and checking it for cracks prior to continuing the drilling operation.

#### d. PHASE III - EVACUATION

It should be noted that Odeco's Toolpusher is responsible for any decision to abandon the rig.

For any storm with forecast winds of 100 m.p.h. or more, consider evacuation of personnel and act as follows:

- Confirm forecast, alert Contractor's Shore Base Manager of environmental condition.
- Request additional forecast from appropriate Weather Center for rig location at 3 hour intervals.
- Review the present and past sea conditions to determine if they are rising or falling and to determine what effect the storm is likely to have on the sea conditions.
- Determine if sea and wind conditions will permit a safe evacuation.
- 5. Determine if evacuation is necessary or possible.
- Discuss with Contractor's Shore Manager, and mutually decide if evacuation is necessary or possible.
- 7. Review procedure for rig evacuation with Barge Master.
- 8. Prepare rig for total evacuation.
- 9. Check on availability of tug boats.
- 10. As conditions warrant
  - (i) Evacuate non essential personnel
  - (ii) Evacuate all personnel except skeleton crew
  - (iii) Complete evacuation

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#### 11. Example of a skeleton crew-

Odeco's Teolpusher T Burge Master Assistant Driller Prilling Crew Safety Engineer Radio Operator Welder Electrician Mechanic Caterers Crane Driver

The total amount of people in a skeleton crew must not exceed the passenger uplift capacity of either 1 or 2 helicopters. This must be checked with helicopter service, considering the prevailing weather conditions and the distance involved.

Practically, evacuation should not be carried out as long as the rig stays on location. If the anchors are dragging or anchor chain/cable break, then evacuation should be considered.

#### 6 A PROCEDURE FOR HANGING-OFF

- Stop drilling, circulate bottoms up, if time permits.
   Spot good quality mud over whole open hole section, if practical and desirable.
- Pull bit to casing shoe plus distance from rotary table to sea bed.
- If tripping run or pull as much pipe as possible to get the bit to the point, which is the same distance above the casing shoe as the rotary table is above the sea bed.
- Install the inside B.O.P. on the string if the bit is inside the shoe.
- Pick up the drill pipe hang off assembly, make up to drill pipe. Run in using bumper subs.
- Land string in well head/B.O.P. stack.
- 7. Close bottom pipe rams if applicable. Close wedgelocks.
- Back out running string and pick up running string approximately 30 feet.
- 9. Close blind rams, if applicable.
- 10. Displace mud in marine riser to sea water.
- 11. Pull out running string.
- Secure pipe in derrick. Secure all loose equipment on floor and pipe rack.
- 13. Make following preparations for disconnecting:
  - (i) Install riser spider on rotary table.
  - (ii) Install riser/diverter handling tool in telescopic joint. Close elevator on handling tool. Disengage diverter lock down dogs pick up inner barrel a foot or two. Land inner barrel and lock inner barrel again. Keep elevator on handling tool.

- Anchor lines should only be reeled out when the mean tension level in the highest loaded anchor line (s) exceeds 350,000 lbs. In this case anchor lines should be reeled out to distribute the storm load more equally over the lines in the storm sector. In order to accommodate this maneuver, ensure that approximately 200 ft of cable is left on all anchor winches when anchor position is finalized.
- 15. If step 14 is carried out then, if possible, attempts should be made to preserve the integrity of one or more guide lines. For this reason, when rigging/ordering guide line wires, ensure that they exceed their fitted length by 25% of water depth. This spare line to be left on the drums, which are to be arranged in such a way that in the event of emergency, the excess wire may be easily reeled out in a controlled manner.

#### 6.8 PROCEDURE FOR RECONNECTING

- 1. Reposition barre over the lower stack using vessel position indicator and  $\text{T.V}\xspace$
- Inspect lower stack with T.V.
- 3. Adjust Rucker pressure to value required for reconnecting.
- 4. Set guide line tension to 6,000 lbs.
- 5. Ensure Riser connector is still in unlatched position.
- 6. Lower Riser on stack. Collapse telescopic joint immediately.
- 7. Run and lock pods to stack.
- 8. Latch on Riser connector. Observe with T.V.
- 9. Land inner barrel, etc.
- 10. Set Ruckers to the required operating pressure.
- 11. Test choke and kill lines to the required pressure.

NOTE: To minimize damage to the underwater equipment the Riser should be reconnected when maximum heave is 3 ft or less and the roll and/or pitch are less than 1½ degrees, half amplitude.

For connecting the stack to the wellhead those figures are 5 ft maximum heave and 14 degrees roll and/or pitch, half amplitude.

#### 6.9 PROCEDURE FOR RE-ENTERING THE HOLE

- Pick up running string with bumper subs and run to approximately 30 feet above the blind rams.
- Circulate riser to mud via drill pipe. Circulate choke line to mud.
- 3. Check annulus pressure through kill line.
- 4. Open blind rams
  - 5 Stab running string and connect up.

: 0 -

- 6. Plose top Werel. Test top half of stack against bottom pipe rums to 100 per only. Open bottom pipe rans. check well pressure through choke line.
- If not okay, kill well with constant D.P. pressure method
- If okay, pull numning string, remove hang-off assembly, etc.
- Run to bottom circulate once around. Continue drilling operations, or do a standard B.O.P.
- stack test fir t depending on duration of W O.W. time If heavy remains over long intervals has to be done in order 11 to get back to fottom remove stabilizers first.

#### SECTION 7 ANCYOR CHAIN/CABLE FAILUSE AND ADRIFT SITUATION:

#### 1.1 GENERAL

In this procedure, it is assumed that the riser has already been disconnected as a normal storm operating procedure.

#### ACTION WHEN CHAIN/CABLS MARKS 7 2

- When a breakage occurs, Birre Captain and Odeco's Toolpusher to be 7.2.1 immediately advised.
- . . 2 . 2 Barge Captain to immediately ascertain intact mooring tensions.
- Windward mooring tensions to be reduced by paying out leeward chains . 2 . 3 to the extent which the Burge Captain shall determine.
- 1.2.4 If conditions are such that it is feared further breakages may occur resulting in an "adrift" situation, Odeco's Toolpusher will call for ting or tug/supply boat assistance as soon as possible.
- ٠.3 ACTION IF ALL MOORING LINES PART OR RIG IS ADRIFT
- 4 3.1 Tug assistance to be called
- 3.2 Vessels, rigs and platforms which may be hazarded in the vicinity to be addited of situation
- , 3.3 If weither conditions permit evacuation belicopter to be summoned and crew in essential for numning rig to be taken off.
- 1.3.4 Procedure locally established in area of operation for advising Coast Coard and other notherities to be implemented.

- 7.3.5 If rig is admift due to breakage of tug tow while making transit voyage, anchoring should not be attempted unless a potentially hazardhus situation involving a lee shore, other installations in vicinity or rig is moving towards very deep water where anchoring is not possible.
- 7.3.6 If unchoring is to be attempted it is emphasized that leads on anchors and chain must be applied gradually by careful application of the windlass band bruke. Any sudden application of load by applying the winch 'stops' will inevitably result in a chain/cable breakage ant/or loss of anchor.

NOTE: One mooring line will not secure the rig under extreme storm conditions. It will be necessary to pay out two mooring lines and allow to ride on windlass brake until both anchors are taking load and rig has stopped moving through the water. At that time, winch 'stops' may be engaged. If wind backs or veers action will be required to equalize chain tension as rig changes heading from anchors.

NOTE: In extreme emergencies, the unit's own propulsion should be considered for steering the vessel clear of danger, if mooring chain(s), wire rope(s) or other items are near aft columns, care should be exercised. However, due to strong environmental forces experienced during a major storm and the large wind area of the vessel, the rig's propulsion may prove to be of little help except to give basic direction.

#### SECTION & ABANDON PLATFORMS

#### 8.1 ALAEM

- 8.1.1 Alarm indicating a possible Abandon Platform situation is given by continuous soundant of the General Alarm. Locations of General Alarm Button are indicated on the Fire Appliance Plan located in the Main Accommodation Passageway.
- 8.2 ABANDON PLATFORM DRILLS
- 8.2.1 Abandon Platform drill shall be conducted not less than once a week.
- 8.2.2 All personnel are to respond to Abandon Platform Drills.
- 8.2.3 The Station Bill indicates where each man shall go and the duties he shall perform. Life Jackets shall be put on.
- 8.2.4 The Stand-by boat shall be advised and will proceed to the immediate vicinity of the rig prepared to give assistance.
- 8.2.5 At each drill, one survival craft will be prepared for lowering, the engine started and all systems checked.
- 8.2.6 At each drill the portable distress transmitter is to be tested and personnel to be instructed in its use.
- 8.2.7 Personnel are to be instructed in evacuation by helicopter including the use of the helicopter winch hoist and harness.

#### 8.3 LIFE SAVING EQUIPMENT

- 8.3.1 hocation of appliances is indicated on the Safety Plan.
- 8.3.2 All personnel will familiarize themselves with the location and operation of Life Saving Equipment.
- 8.3.3 Barge Captain will ensure that personnel in charge of Survival Craft.

  Rescue Craft and Liferafts are familiar with the operations of the equipment.
- 8.3.4 Survival Craft will be lowered in davits and recovered during suitable weather and all systems checked for correct operation at least once in every eight week period. Such checks shall be recorded in the Ocean Ranger's Log Book.

- 8.3 St. Access to all Life Saving Equipment shall be kept clear of obstructions at all times.
- 8.3.5 De Barge Captain will ensure that all personnel lifesaving equipment, lifehelts, flares, rockets and other equipment are in their allocated place and in good condition, within date limits where applicable, at least every eight weeks. Such inspections shall be recorded in Ocean Ranger's Log Book.
- 8.4 ACTION IN EVENT OF PLATFORM ABANDONMENT.
- 8 4 1 The decision to prepare for platform abandonment shall be made by the Odeco's Toolpusher.
- 8.4 1 The Mandon Plattorm Alarm shall be sounded by Odeco's Toolpusher or by a person directly instructed he the Manager to sound the alarm.
- 8 4.1 All persons will assemble with their life jackets on at appointed stations. Warmest possible clothing should be worn.
- The Radio Operator will advise Stand-by Boat and the Air Sea Rescue Services, and such other services as designated in Governmental or Operator instructions, of the possibility of Platform Abandonment, giving Name of Installation, Position, Weather conditions, and reason for planned abandonment.
- 8.4 b ordeco's Toolpusher will decide if complete, or partial evacuation leaving skeleton crew, is to be carried out and will advise all parties via the public address system.
- In the event of complete abandonment, Assistant Toolpusher will ensure that the well is secured. Rig Mechanic will ensure that all main power plants are shut down and emergency systems are functioning on the batteries. Rig Electrician will assist Rig Mechanic, and will ensure obstruction lights are functioning correctly. Control Room Operator will ensure all ballast and sea inlet valves are closed; he will also ensure all W.T. doors are closed.
- 8 4 7 Radio Operator, in the event of complete shandonment will transmit May Dav signal and before leaving his post will activiate the omergency automatic distress signal transmitter. He will carry the Portable Distress Transmitter with him to his survival craft.

- 8.4.8 Survival Craft will not be lowered to water until all personnel scheduled for that Craft have been accounted for by Person in Charge.
- 8.4.9 After evacuation of the rig, survival craft should be driven clear of any hazard and preferably proceed to the Stand-by Boat, or, if this is not possible due to prevailing conditions, attempt to remain grouped together as near the location as possible.
- 8 4.10 If for some reason, a survival craft cannot be used, recourse must be nade to the inflatable liferafts. All personnel having to leave the rig should ensure that a liferaft is available in the water, inflated, for them to reach and board.
  - 8.4.11 In the event of evacuation of part of the crew by inflatable liferaft, the other survival craft shall endeavour to collect the inflatable craft and pick up survivors in water wherever they do not risk placing themselves into a dangerous situation.
  - 8.4.12 Stand-by Boat will endeavour to recover survivors and will keep shore based authorities and other vessels in area advised of situations, and will call for assistance as necessary.

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#### SECTION O COLLISION DAMAGE

#### 9.1 ACTION IN EVENT OF STRUCTURAL DAMAGE

- 9.1.1 Bullist Control Fion operator to close all ballast, drill water oil fuel system valves, and W.T. doors.
- 9.1.2 \*\*allast Control Room Operator to establish as quickly as possible which portion of rig is damaged and-immediately initiate counter-liboding action on side of rig opposite to damage.
- 9.1.3 Ballast Control Poom Operator shall sound Fire Alarm signal on General Alarm if he requires assistance to control situation.
- 9.1.4 Barge Captain and eff-duty Control Room Operator to proceed to Control Room.
- 9.1.5 Odeco's Toolpusher to contact Barge Captain and establish assistance required.
- 9.1.6 Barge Captain will dispatch off-duty Control Room Operator to close all compartment vent-pipes on damaged side of rig. Do not close vent⇒pipes or oppositeside of rig since this would obstruct counter flooding and risk rupture of tanks during counter flooding.
- 9.1.7 If damage is severe, and may result in possible loss of rig, the Odeco Toolpusher should order the well to be secured and pit contents to be dumped. Deck drill water tank and deck salt water tank contents should also be dumped.
- 9.1.8 Rig may be lightened if necessary, and if weather conditions permit, by paying out remaining cable on anchor winches.
- 9.1.9 Damage Counter flooding procedures are detained in "Damage flooding counter measure" of Stability Booklet.

#### 9.2 GENERAL

- 9.2.1 Immediate closure of all compartments liable to flooding is essential.
- 9.2.2 Immediate counter-flooding of opposite compartments will prevent rig from reaching a capsize situation or a dangerous angle of heel which may cause deck load to shift or result in derrick failure.



ODECO DRILLING OF CANADA, LIMITED

Odeco Building - 1600 Canal Street Mail to: P.O. Box 61780, New Orleans, LA 70161

October 16, 1981

Mobil Oil Canada, Ltd. Post Office Box 800 Calgary, Alberta T2P 2J7 Canada

Attention: Mr. C. C. Woodruff - Operations Manager

Re: Drilling Unit Ocean Ranger/Contract Extension

#### Gentlemen:

Reference is made to that certain Offshore Drilling Agreement between Mobil Oil Canada, Ltd. (Operator) and Odeco Drilling of Canada Limited (Contractor), dated February 28, 1980, relating to the use of the Drilling Unit Ocean Ranger.

In accordance with Article II, Clause 202 (c), the defined Term of the above referenced Agreement is hereby extended for a period of two (2) years commencing from 0001 hours, November 19, 1981 under mutually agreed terms and conditions as follows:

Effective from the commencement of the above extension period (11/19/81) the rates set forth in Article VIII shall be:

Clause 804 - Operating Rate: US Dollars \$ per day.

Clause 805 - Standby Rate: US Dollars \$ per day.

Clause 806 - Repair Rate: US Dollars \$ pcr day.

The above rates are based on Contractor's anticipated costs as of November 19, 1981 and shall be adjusted thereafter in accordance with the escalation provisions presently contained in Clause 810 (Variation of Rates) of our Agreement. It is also understood and agreed that the above rates

October 16, 1981

incorporate all previously executed contract additions and escalations which include the addition for furnishing the Type SDD tongs and mud watchers as set forth in separate letter agreements dated 11/18/80 and wage escalations as set forth in letters dated 12/4/80, 3/12/81, 4/23/81 and 7/24/81. In addition the following paragraph shall be added to Clause 810:

In addition, the rates set forth in this Article VIII shall be increased or decreased to allow for changes in Contractor's costs other than those listed above through application of the formula given below:

Where:

- Y = Revision in Rate US\$ Dollars per day.
- CF<sub>1</sub> = Initial cost factor of US\$ (or as calculated based on each subsequent adjustment).
- PPI = Oilfield Drilling Machinery and Equipment Producer Price Index (Table A Code No. 1191.02) as published by the U. S. Department of Labor, Bureau of Labor Statistics for the month prior to the effective date of the rate adjustment.

Adjustment to the rates will be made when the percentage Index change is equal to or greater than five percent (5%) and such adjustment will be effective from the first day of the month following the month from which the adjustment is calculated.

October 16, 1981

This extension is the exercise of Operator's option under present Clause 202 (c), however, Operator shall have the option to further extend the term of our Agreement through application of Clause 202 (c) revised as follows:

202 (c) Operator shall have the option to further extend the term of this Agreement for an additional one (1) year period subject to mutually agreed terms and conditions.

Operator's written notice of its desire to exercise this option must be given to Contractor not less than six (6) months prior to the expiration of the initial Ewo (2) year extension and negotiations as to the terms and conditions are to be concluded and executed within thirty (30) days from receipt of such notice.

failing agreement as to the term and conditions of such further extension, this Agreement shall terminate at the end of the initial two (2) year extension when the Drilling Unit is returned and moored in safe harbor all as set forth in Clause 202 (a).

- 3. As of November 19, 1981 the two side letter agreements dated November 18, 1980 for the furnishing of two (2) Mud Watchers and two (2) BJ Type SDD Tongs shall be of no further force and effect and such personnel and equipment shall be thereafter incorporated into Appendices B and A respectively.
- 4. Contractor, at no additional cost to Operator and at the earliest opportunity consistent with the present long order and delivery time of certain items, shall make the following "Appendix A" equipment changes or modifications:

# Item C.1 Replace currently furnished 5", Grade E drill pipe with an equivalent amount (10,000 ft.) of 5", Grade S135. C.2 Furnish an additional 5,000 ft. of 5", Grade G105 drill pipe for a total of 10,000 ft.

#### October 16, 1981

Item	Description
C.2(a)	Purnish 30 joints of 5" Heavy Weight drill pipe, Range 2 with 5" X-Hole connections.
C.2(b)	Furnish six (6) each $9-1/2$ OD x $2-13/16$ ID x $3!-1/2$ long drill collars with $7-5/8$ API Regular connections, slip and elevator recesses and fine particle hardbanding.
C.5.	Furnish four (4) each, lift nipples for 9-1/2" OD drill collars for use with 5" drill pipe elevators.
C.25(a)	Furnish two (2) each, single joint elevators for 20", $13-3/8$ ", $9-5/8$ " and 7" casing.
C.28	Furnish two (2) each, elevators for 9-1/2" OD drill collars.
C.31	Furnish slips for 9-1/2" OD drill collars.
C.33	Furnish safety clamps for 9-1/2" OD drill collars.
C.39	Replace existing 150 ton, 20° casing clevators with equivalent size 250 ton elevators.
D.3	Replace existing shale shakers with one (1) Brandt Triple Tandem Screen Separator.
E.1	Furnish one (1) set each of Cameron 18-3/4" x 9-5/8" and 18-3/4" x 7" ram assemblies for Contractor's BOP stack (In addition to 5" pipe rams and blind/shear rams presently furnished).

Due to long order and delivery times, Contractor shall not be responsible for any delays in the delivery of the above items and any such delays shall have no effect on the extension terms hereof. Upon delivery, the above items will hecome part of Contractor's furnished equipment under Appendix A.

October 16, 1981

In making the above equipment changes or modifications, Operator shall continue to provide the normal transportation and other services required under the above referenced Agreement and any delays in the operation which arise as a result of making such changes or modifications shall be paid at the Standby Rate.

The following personnel shall be added to Appendix B 5. (Personnel to be Supplied by Contractor):

Added Number	Classification	Revised On Board	Revised Total Assigned
1	Mechanic	2	4
1	Electrician	2	4
1	Materialsman	1	2
2	Mud Watchers	2	4
	(See Para. 3 above)		
1	Electronic Technician	1	2

All other terms and conditions of the above referenced Agreement including any amendments thereof shall remain un-6. changed.

If you are in agreement with above, please so indicate in the space provided below and return one fully executed copy of this letter for our file.

Sincerely,

ODECO DRILLING OF CANADA, LIMITED

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ву:	<u> </u>	<u> </u>

	ву:		<u> </u>	`
Agreed and Accepted this $\frac{g^2}{2}$ day				
of November, 1981.		AFFR	OVED	
MOBIL OIL CANADA, LTD.	u	coAt:	eta tulos	
By (Mithirall)	OL	KATE !	267	
ANNIET State Story				

February 25, 1980

#### OFFSBORE DRILLING AGREEMENT

THIS AGREEMENT, effective the 28th day of February, 1980 (hereinafter referred to as "Effective Date") is made between: MOBIL OIL CANADA, LTD., a corporation incorporated under the laws of Canada, with head office at the City of Calgary, in the Province of Alberta, and hereinafter called Operator, and: ODECO DRILLING OF CANADA LIMITED., a corporation organized under the laws of Canada, with an office at the City of Calgary, in the Province of Alberta, and hereinafter called Contractor.

WHEREAS, Operator desires to have offshore wells drilled in the Operating Area and to have performed or carried out all auxiliary operations and services as detailed in the Appendices hereto or as Operator may require; and

MREREAS, Contractor is willing to furnish the drilling unit OCEAN
RANGER complete with drilling and other equipment, (hereinafter called the
"Drilling Unit"), insurance and personnel, all as detailed in the appendices
hereto for the purpose of drilling the said wells and performing the said
auxiliary operations and services of Operator.

NOW TREEFORE THIS AGREEMENT WITNESSETH that in consideration of the covenants herein it is agreed as follows:

#### ARTICLE I - INTERPRETATION

#### 101. Definitions

- th this Agreement unless the cortext otherwise requires:
- (g) accommence ment 88tg means the point in time that the Orilling Unit is feltpard by Philips Petroleum offshore Irrland\_with all anchors bolstered and with all Phillips Petroleum equipment and supplies offloaded;

- (b) "Operator's Items" means the equipment and material to be provided by or at expense of Operator and which are listed in the Appendix C;
- (c) "Contractor's Items" mean the equipment and material which are listed in Appendix A that are to be provided by or at expense of Contractor;
- (d) "Contractor's Personnel" means the personnel specified in Appendix B to be provided by Contractor from time to time to conduct operations hereunder.
- (e) "Operating Area" means those areas of the seabed and subsoil beneath the waters offshore East Coast of Canada south of 50 degrees north latitude in which Operator may from time to time be entitled to conduct drilling operations:
- (f) "Operations Base" means the place or places on shore designated as such by Operator from time to time. The initial Operations Base shall be St. John's, Newfoundland. For crew change purposes, the initial Operations Base shall be St. John's International Airport.

#### 102. Currency

In this Agreement, all amounts expressed in dollars are United States Dollar amounts.

#### 103. Conflicts

The Appendices hereto are incorporated herein by reference. If any provision of the Appendices conflicts with a provision in the body hereof, the latter shall prevail.

#### 104. Headings

The Baragraph headings shall not be considered in interpreting the text of this Agraement.

#### iff. Putther Assurances

Each party shall perform the acts and execute and deliver the documents and give the assurances necessary to give effect to the provisions of this Agreement.

#### 106. Contractor's Status

The Contractor shall conduct operations under this Agreement as an independent contractor and shall have the authority to control and direct the performance of all its operations hereunder. Neither Contractor nor its agents or subcontractors or employees shall be deemed for any purpose to be agents, servants or representatives of Operator in the performance of such operations. Nothing contained herein, including the provisions of Clause 503, shall be construed to be inconsistent with such independent contractor relationship.

#### 107. Governing Law

This Agreement shall be construed and the relations between the parties determined in accordance with the laws of the Province of Alberta, not including, however, any of its conflicts of law rules which would direct or refer to the laws of another jurisdiction.

#### ARTICLE II - TERM

#### 201. Effective Date

The parties shall be bound by this Agreement when each of them has executed it.

#### 202. Term

- (a) The Term of this Agreement shell be for a period of thirteen (13) menths from the Commencement Date, provided, however, that the Term shell be extended for the period of time required to complete operations on the well then in progress on the termination date and to return the Drilling Unit to a safe harbor offshore. Conception Say, Newfoundland (or point no farther distant) with all Operator and Operator third party equipment and supplies offloaded.
- (b) In the event the Drilling Unit becomes a total loss (which will include 688mmrfd6tive, arranged and/or compromised total loss), this happeness will be considered as terminated, without notice, as from the moment Contractor's underwriters determines that the loss occurred.

- 4 -

(c) Operator shall have the option to extend the Term of this
Agreement for an additional twelve (12) month period under
mutually agreed terms and conditions provided written notice
thereof is given to Contractor no later than 120 days prior to the
end of the initial Term.

#### 203. Continuing Obligations

Notwithstanding the termination of this Agreement, the parties shall continue to be bound by the provisions of this Agreement that reasonably require some action or forbearance after the cessation of the day rates provided for hereinafter.

#### 204. Return of Operator's Items

Open termination of this Agreement, Contractor shell return to Operator

any of Operator's Items which are at the time in Contractor's possession.

#### ARTICLE III - CONTRACTOR'S PERSONNEL

#### 301. Number, Selection, Hours of Labor and Remuneration

Except where herein otherwise provided, the selection, replacement, hours of labor and remuneration of Contractor's Personnel shall be determined by Contractor and such employees shall be the employees solely of Contractor.

#### 302. Providing Personnel

Contractor shell provide the classification and numbers of personnel as specified in Appendix B. If for reasons within Contractor's control there occurs a shortage Confidential's Personnel on board the Drilling Unit and in Operator's sole or inich such shortage affects the efficiency of the drilling upon the fee the period of such absence Operator shell be untitled to a lieute equal to one and one-half (1-1/2) times the base daily tages off the sound so absence.

### 181: Contractor's Representative

Contractor shall nominate one of its personnel as Contractor's representative (hereinafter called "Contractor's Representative") who shall be in charge of the remainder of Contractor's Personnel and who shall have

full authority to resolve all day-to-day matters which arise between Operator and Contractor.

#### 304. Increase in Contractor's Personnel

Operator may, at any time, with Contractor's approval require Contractor to increase the number of Contractor's Personnel, and the day rates provided herein shall be adjusted accordingly.

#### 305. Replacement of Contractor's Personnel

Contractor's Personnel if Operator so requests in writing and if Operator can show reasonable grounds for such removal.

#### ARTICLE IV - CONTRACTOR'S ITEMS

#### 401. Obligation to Supply

Contractor shall provide the Drilling Unit and other Contractor's Items as specified in Appendix A.

#### 402. Maintain Stocks

Contractor shall be responsible, at its cost, for maintaining adequate stock levels of Contractor's Items and for replenishing same as may be necessary.

#### 403. Maintain and Repair Equipment

Contractor shall at Contractor's cost and expense, subject to Clause 1001, be responsible for the maintenance and repair of all Contractor's Items and will provide all spare parts and materials required therefor. Contractor shall, if requested by Operator, also maintain or repair, at Operator's cost, any of Operator's Items on board the Drilling Unit which Contractor is qualified to and can maintain or repair with Contractor's Paissonnel and the equipment on board the Drilling Unit; provided, however, that Operator shall at its cost provide all spare parts and materials required to maintain or repair Operator's Items and the basic responsibility and liability for furnishing and maintaining such items shall remain with Operator.

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#### 404. Inspection of Orill Pige

Contractor's drill pipe, drill collars, substitutes and other downhole equipment regularly in use shall be inspected at least every 50,000 feet of hole drilled by a recognized inspection service at Contractor's expense. At Operator's request, Contractor shall furnish copies of applicable inspection reports. Upon inspection any drill pipe not passing API Class 2 specifications (Refer API RP 7-G latest edition) shall be rejected and replaced. Any drill collars connections showing defects shall be recut in accordance with API specifications. More frequent inspections may be carried out at Operator's request and expense.

#### 405. Additional Egipment

Should special tools, materials, apparatus or services, other than those designated in this Agreement or required for normal offshore operations, be necessary for the drilling or completion of the well(s) hereunder, their cost and the manner in which they are to be furnished must be agreed upon beforehand in writing.

Operator may, at its expense and with the approval of Contractor, install on the Drilling Unit such additional equipment as may be required by it in the conduct of operations contemplated by this Agreement. Any such equipment shall remain the property of the Operator and shall be removed and the physical evidence of installation shall be repaired at Operator's expense before termination of this Agreement.

#### ARTICLE V - CONTRACTOR'S GENERAL OBLIGATIONS

#### 501. Contractof's Standard of Performance

Contractor shall earry out all its operations hereunder with due diligence, in a good workmanlike manner and in accordance with best oilfield practices. Contractor shall maintain the Drilling Unit in A.S.S. or equivalent classification. Each party shall comply with all applicable laws and foodtations covering its respective operations hereunder and, subject to Artists it shall indemnify and hold harmless the other party against any issuit from its failurs to so comply.

#### 502. Operation of Drilling Unit

Contractor shall be solely responsible for the operation of the

Drilling Unit, including, without limitation, supervising moving operations and positioning on drilling locations as required by Operator, as well as such operations on board the Drilling Unit as may be necessary or desirable for the safety of the Drilling Unit. Operations under this Agreement will be performed on a 24-hour per day basis.

#### 503. Compliance with Operator's Instructions

Contractor shall comply with all instructions of Operator consistent with the provisions of this Agreement including, without limitation, drilling, well control and safety instructions. Such instructions shall, if Contractor so requires, be confirmed in writing by the authorized representative of Operator. However, Operator shall not issue any instructions which would be inconsistent with Contractor's rules, policies or procedures pertaining to the safety of its personnel, equipment or the Drilling Unit.

#### 504. Adverse Weather

Contractor, in consultation with Operator, shell decide when, in the face of impending adverse weather or ice conditions, to institute precautionary measures in order to safeguard the well, the well equipment, the Drilling Unit and personnel to the fullest possible extent. Contractor and Operator shell not act unreasonably in the exercise of this Clause.

#### 505. Hud and Casing Program

Contractor shall take all reasonable care to follow the mud and casing program as specified by Operator. Operator shall provide Contractor with these programs reasonably in advance of the spud date of each well to be drilled hereunder.

#### 506. Cutting/Coring Program

Contracted shall save and identify cuttings and cores according to Sparator: i inatifications and place them in containers furnished by Operator.

#### 507. Records to be Kept by Contractor

Contractor shall keep and furnish to Operator an accurate record of the work performed and formation drilled on the IADC-API Daily Drilling Report

Form or other form acceptable to Operator. A legible copy of said form signed by both Contractor's and Operator's representative shall be furnished by Contractor to Operator.

#### 508. Difficulties During Drilling

In the event of any difficulty arising which precludes either drilling ahead under reasonably normal procedures or the performance of any other operations planned for a well, Contractor may suspend the work in progress and shall immediately notify the representative of Operator, in the meantime exerting reasonable effort to overcome the difficulty.

#### 509. Safety Equipment

Contractor shall test, operate and maintain in good condition its well control equipment and other safety equipment in accordance with Operator's instructions and Contractor's established procedures.

#### 510. Payment of Claims

Contractor shall pay all claims for labor, equipment, supplies and materials to be furnished by Contractor hereunder and Contractor shall protect, defend, indemnify and hold Operator harmless from and against all claims, demands and causes of action which Operator may suffer as a result of any lien or attachment on Operator's property which results from Contractor's failure to pay such claims.

#### ARTICLE VI - OPERATOR'S OBLIGATIONS

#### 601. Equipment and Personnel

Operator shall, at Operator's cost, provide Operator's Items and
Personnel and perform the services to be provided or performed by Operator
as specified in Appendix C. In addition to providing the initial supply of
Operator's Items, Operator shall be responsible, at Operator's cost, for
maintaining adequate stock levels and replenishing same as necessary.

#### 602. Maintenance and Repair

Operator shall be responsible, at Operator's cost, for the maintenance and repair of all Operator's Items on board the Drilling Unit which Contractor is not qualified to or cannot maintain or repair with Contractor's Persennel and the equipment on board.

Operator shall ensure that Operator's personnel on board the Drilling Unit shall be competent and efficient and Contractor may treat Operator's senior representative for the time being on board the Orilling Unit as being in charge of all Operator personnel on board.

#### 604. Replacement of Operator's Personnel

Contractor shall have the right to request that Operator remove and replace any Operator personnel on board the Drilling Unit if Contractor can show reasonable grounds for such request.

#### 605. Operator Representatives

Operator may, from time to time, designate representatives for the purposes of this Agreement who shall at all times have access to the Drilling Unit and may, among other things, observe tests, check and control the implementation of the mud program, examine duttings and cores, inspect the work performed by Contractor or examine the records kept on the Drilling Unit by Contractor.

#### 606. Custom or Excise Duties

Operator shall pay all import or export charges, customs or excise duties, local sales taxes, value added taxes, clearing agent's fees, or other similar taxes or fees that are levied on Contractor's payments hereunder and on Contractor's and/or Operator's Items.

Operator <u>shell</u> provide Contractor with access to the drilling site as well as any drilling permits, licenses or certificates needed to conduct operations bereunder.

#### 607. Taxes

Subject to the provisions of Clause 606, Contractor shall pay all taxes assaulted by of Desse on Contractor's income or profits levied or assessed spaint it in connection with the work performed hereunder and agrees to indemnify dysertes and hold Operator safe and harmless from and against any and ell claims or liability for income, excess profits, and other similar tames, and fines, penalties and interest thereon assessed or levied by the government of the Operating Area or any political subdivision thereof or by

the government of any other country against Contractor or against Operator for or on account of any payment made to or earned by Contractor hereunder. Contractor represents that, for the purposes of Canadian Income Tax legislation, it is a resident of Canada. If, during the performance of this Agreement, the Contractor at any time ceases to be a resident of Canada the applicable percentage of payments, as required by such legislation, will be withheld by Operator with respect to services performed in Canada.

Contractor further agrees to protect and save Operator safe and harmless from and against all taxes and related fines, penalties, and interest thereon assessed or levied against or on account of wages, salaries or other benefits paid to Contractor's employees or employees of its subcontractors, and all taxes assessed or levied against or on account of any property or equipment of said employees.

#### ARTICLE VII - OPERATOR'S INSTRUCTIONS

#### 701. Instructions to Contractor

Operator may, from time to time, through Operator's Representative or representatives, issue written or oral instructions to Contractor covering operations hereunder. Operator's instructions may be general or may deal with specific matters relating to operations hereunder including, without limitation, instructions to stop operations, as to safety and well control, and drilling instructions, but Operator may not require Contractor to drill deeper than 25,000 feet measured depth or operate in water depths less than 150 feet of greater than 600 feet unless Contractor agrees.

#### ARTICLE VIII - RATES OF PAYMENT

#### 801. Payment

Operatof ##### to Contractor during the Term of this Agreement the amounts from time to time due calculated according to the rates of payment he in adderdance with the other provisions hereof. "

Other payment shall to due from Operator unless specifically provided for in this Agreement or agreed to in white Agreement or agreement or agreed to in white Agreement or agr

#### \$82. Mobilisation Pee

There shall be no lump sum mobilization fee. However, the Term and payment of applicable day rate will commence immediately upon Drilling

Unit's release by Phillips Petroleum offshore Ireland as set forth in Clause 101 (a). All fuel, tugs and other towing costs to move the Drilling Unit from Ireland to the Operating Area shall be the responsibility of Operator.

#### 803. <u>Demobilization Fee</u>

There shall be no lump sum demobilization fee. However, the Term and payment of applicable day rate shall continue until the Drilling Unit is returned and moored in safe harbor offshore Point Conception, Newfoundland (or point no further distant) with all Operator and Operator third party equipment and supplies offloaded.

#### 804. Operating Rate

The Operating Rate will be 1 per 24-hour day and will be payable from the Commencement Date and thereafter during the Term hereof except when some other rate is otherwise payable hereunder.

#### 805. Standby Rate

The Standby Rate will be \$ per 24-hour day and will be payable:

- (a) during any period of delay when Contractor is unable to proceed because of adverse sea or weather conditions or as a direct result of an act or omission of Operator including, without limitation, the failure of any of Operator's Items, or the failure of Operator to issue instructions, provide Operator Items or furnish services; or
- (b) during any period after Commencement Date that the Drilling Unit is under tow, or under way from one location to another, as from the moment when the Drilling Unit's last anchor is bolstered and is in all respects ready to move until the moment when the Drilling Unit commences mooring operations at the new location; or
- (d) during any period when operations are suspended due to loss, damage or for repair to Contractor's in hole or subsea equipment, including but not limited to anchors, anchor chains and associated ground tackle, riser, guidelines, blowout preventer and well control and observation equipment used below the surface of the water; or
- (d) during any period of delay when Contractor is unable to proceed

with operations in order to allow the necessary inspection, modification or repair of the Drilling Unit as required by applicable regulatory authorities or as required to maintain the Drilling Unit in class. The Standby Rate shall also be payable during any period of delay required to repair damage to the Drilling Unit or its equipment resulting from Operator's or Operator's subcontractors negligence.

#### 806. Repair Rate

The Repair Rate will be \$ per 24-hour day and will be payable for any period in excess of seventy-two (72) hours per calendar month during which operations are suspended to permit necessary replacement, inspection, repair or maintenance of Contractor's Items (excluding periods of suspension which are covered under Clause 805 or 808) provided, however, that should a period of suspension continue for a period of more than thirty (30) consecutive days, Contractor's rate of pay shall after the thirtieth (30th) day be reduced to eighty percent (80%) of the Repair Rate after which Operator may terminate this Agreement at any time during such continued suspension by giving Contractor seven (7) days' written notice without further obligation or liability on either party except for the return of the Drilling Unit to safe harbour as set forth in Clause 202(a). Unless and until such termination, Operator shall continue to pay the reduced Repair Rate until operations are resumed. The time required for routine rig maintenance such as but not limited to slipping of lines, repecking swivel, replacing liners, testing of BOP and well control equipment and delay, which result in waiting on Operator furnished transportation or weather shall be excluded from the period of suspension under this Clause 806. In the event repairs bereunder require the moving of the Drilling Unit off location, such moving costs, including tugs and fuel, shall be the responsibility of Operator.

#### 867. In Port Rate

The In Port Rate will be the Standby Rate less any savings as can be mutually agreed and will apply under the terms set forth in this Clause 807 in the event Operator notifies Contractor, in writing, of its desire to about down drilling operations and move the Orilling Unit to the nearest mutually

agreed safe port (hereinafter referred to as the in Port Notice). Operator may request Contractor to release all crew members not required, in Contractor's judgment, for the protection and maintenance of the Contractor's equipment or for the orderly resumption of operations. The move to such mutually agreed safe port shall be made at Operator's expense and at the appropriate rates set forth in this Article VIII. Fifteen (15) days after the Drilling Unit has been safely moored in said mutually agreeable port (or if the Orilling Unit is, at the time of such In Port Notice, already in port, then fifteen (15) days after such In Port Notice is given) the In Port Rate shall become effective and shall continue until Contractor recommences normal operations with full crews in preparation for the move back to location (for which Operator shall have given Contractor thirty (30) days' prior notice). Operator shall reimburse Contractor for Contractor's cost and expenses incurred in the release and repatriation of personnel and for the expenses of re-crewing upon resumption of operations, as well as port fees and other such charges incurred during such period.

#### 808. Force Majeure Rate

The Force Majeure Rate will be the Standby Rate less any savings as can be mutually agreed and will be payable during any period in which operations are not carried on because of Force Majeure, other than adverse see or weather donditions. In the event a Force Majeure condition prevails for a period of thirty (30) consecutive days, then Operator may thereafter, at its option, by written notice to Contractor, effective fifteen (15) days from the date of notice, terminate this Agreement, Provided, However, if the Force Majeure dondition is caused or brought about because of action of federal or provingial laws, acts and regulations of any governmental authorities having jurisdiction in the premises or of any other group, organization of informal association (whether or not formally recognized as a governmental).

#### 188: Aditional Baymanes

SEFALOR shall, in addition, pay to Contractor,

(a) the cost of any overtime paid by Contractor to Contractor's Personnel in respect of the maintenance or repair on board the Drilling Unit of Operator's Items or other overtime required by Operator; and (b) Contractor's costs associated with vaiting on Operator-furnished transportation or for time in excess of 4 hours in transit to or from the Drilling Unit.

#### 810. Variation of Rates

The rates and/or payments herein set forth shall be revised by the actual amount of the change in Contractor's cost if an event as described below occurs or if the cost of any of the items hereinafter listed shall wary by more than the amount indicated below from Contractor's cost thereof on the Effective Date of this Agreement or by the same amount after the date of any revision pursuant to this clause:

- (a) if labor costs (including all benefits and the cost of taxes paid by Contractor for its employees) vary by more than five percent (5%);
- (b) if Operator requires Contractor to increase the number of Contractor's Personnel;
- (c) if it becomes necessary for Contractor to change the work schedule of its personnel or change the location of its operations base;
- (d) in the event described in Clause 1202 (Assignment) or as a result of a change in the Operating Area;
- (e) if there is any change in the laws or regulations of any government of competent jurisdiction affecting the Operating Area (or subdivision thereof) or new interpretation of existing laws or regulation which alters Contractor's operating costs or financial burdens
- (f) if the cost of catering varies by more than five percent (5%):

#### ARTICLE IX - INVOICES AND PAYMENTS

#### 901. Monthly Invoices

Contractor shall bill Operator at the end of each month for all daily—charges earned by Contractor during the month. Other charges shall be billed as earned. Billings for daily charges will reflect details of the time spent (calculated to the nearest one-quarter hour) and the rate charged for that time; billings for other charges will be accompanied by invoices supporting costs incurred for Operator or other substantiation as required.

#### 902. Payment

Operator shall pay all billings within thirty (30) days after the receipt thereof except that if Operator disputes an item billed, Operator shall within twenty (20) days after receipt of the bill notify Contractor of the item disputed, specifying the reason therefor, and the payment of the disputed item shall be withheld until settlement of the dispute, but payment shall be made of any undisputed portion. Any sums (including amounts ultimately paid with respect to a disputed invoice) not paid within thirty days after receipt of invoice shall bear interest at the rate of 10 percent per annum or pro rata thereof from the due date until paid. If Operator refuses to pay undisputed items, Contractor shall have the right to terminate this Agreement.

#### 903. Manner of Payment

All payments due by Operator to Contractor hereunder shall be made in United States Dollars as follows:

- (a) All payments to Contractor in excess of Pifty Thousand Dollars (\$50,000.00) shall be by value dated telegraphic transfer to Contractor's account at the Whitney National Bank, New Orleans, Louisiana, Account Number 15-026-807 with confirming telex advice to Contractor at the address specified in Clause 1301;
- (b) Payments to Contractor of Fifty Thousand Dollars (\$50,000.00) or less will be made by cheque and mailed to Contractor at P.O. Box \$1780, New Orleans, Louisiana 70161.

#### ARTICLE X - LIABILITY

#### 1001. Liebility for Equipment

AS between Operator and Contractor the responsibility for loss of or damage to equipment shall be as follows:

(a) Except as provided in (c) and (d) below, Operator shall not be itable for damage to, loss or destruction of Contractor's Brilling Unit of other Items or property of Contractor and EGALFRETER Shall indemnify, defend and hold Operator harmless from and against any claim for damage to or loss or destruction of Contractor's Drilling Unit or property, or any expense, loss or claim related to or resulting from such damage, loss or destruction.

This Clause shall not be construed as releasing the towing or supply boat contractor retained by Operator to move or supply the Drilling Unit, or any other agent (excepting Operator's employees) or contractor of Operator from liability or damage to the Drilling Unit or other property of Contractor caused by such party's negligence.

- (b) Contractor shall not be liable for damage to loss or destruction of Operator's equipment, items, property, or materials'involved in the operations and Operator shall indemnify, defend and hold Contractor harmless from and against any claim for damage to or loss or destruction of Operator's equipment, items, property or material or any expense, loss or claim related to or resulting from such damage, loss or destruction.
- (c) Operator agrees to indemnify and reimburse Contractor for the cost of repairing Contractor's subset and in hole equipment damaged while in use in the hole or below the surface of the water, and the cost of replacing such equipment lost or destroyed in hole or below the surface of the water, including such transportation costs as may be required to affect such repair or replacement. Reimbursement for replacement of Contractor's subset and in hole equipment (including BOP stack, riser and related equipment, anchors, anchor line, drill pipe, drill collers, subs. fishing tools and other drill string equipment) shall be based upon ninety percent (30%) of new replacement value, plus freight and handling FOB the Drilling Unit (not to exceed cost to deliver to Operating Area) without regard to Contractor's insurance if any.
- (d) Operator shell be responsible for wear and/or damage to Gentrator's Items or equipment resulting from the presence of \$2.5 Of Other similar corrosive elements in the hole, excessive Walf SEMS.1 by said cutting, or damage resulting from excessive Or URCSATISTIES pressures such as those encountered during testing, blow out, or in a well out of control, from excessive deviation of the hole or wellhead from vertical or of dog 'eg severity, from fishing, cementing or testing operations, and from any unusual drilling practices employed at Operator's requerations.

(e) For purposes of this Clause 1001, equipment of Contractor's subcontractors shall be considered Contractor's equipment and equipment of Operator's other contractors and subconstractors shall be considered Operator's equipment.

#### 1002. The Role

In the event the hole shall be lost or damaged, Operator shall be solely responsible for such damage or loss to the hole, including the casing therein, regardless of whether such a loss or damage was caused by the negligence of Contractor, or its employees, agents or subcontractors provided that:

- (i) if such loss or damage results from the willful misconduct or omission, or the sole negligence of Contractor or any of Contractor's Personnel, and Operator elects to redrill or repair the hole, then Contractor agrees to a reduction of the rates set forth in Clauses 804, 805 and 806 by twenty (20%) percent for the time required to redrill the hole to a depth equal to that lost, or to repair damage to the hole. It is further agreed, however, that Contractor's maximum liability for such reduction in rates shall not exceed a total of \$100,000.
- (ii) in the event Operator elects not to redrill or repair the hole. Contractor shall be under no obligation to Operator with regard to the loss of or damage to the hole.

#### 1003. Inspection of Materials Furnished by Operator

Contractor agrees to visually inspect all materials furnished by Operator before using same and to notify Operator of any apparent defects .

therein. Contractor shall not be liable for any loss or damage resulting from the use of materials furnished by Operator.

#### 1004. Contractor's Personnel

Contractor agrees to protect, defend, indemnify and save Operator harmiess from and against all claims, demands, and causes of action of every kind and character arising in connection herewith in favor of Contractor's employees, Contractor's subcontractors or their employees, or Contractors's limitees, on account of bodily injury, death or damage to their property.

#### 1005. Operator's Personnel

Operator agrees to protect, defend, indemnify and save Contractor harmless from and against all claims, demands and causes of action of every kind and character arising in connection herewith in favor of Operator's employees, Operator's other contractors or their employees (other than those identified in Clause 1004 above) or Operator's invitees, on account of bodily injury, death or damage to their property.

#### 1006. Pollution and Contamination

Notwithstanding anything to the contrary contained herein, it is understood and agreed by and between the Contractor and Operator that the responsibility for pollution or contamination shall be as follows:

- (a) Contractor shall assume all responsibility for, including control and removal of, and shall indemnify and hold Operator harmless from and against any loss or damage arising from pollution or contamination which originates above the surface of the water only from negligent spills of fuels, lubricants, motor oils, pipe dope, paints, solvents, ballast, bilge and garbage wholly in its possession and control and directly associated with its own equipment and facilities.
- (b) Operator shall assume all responsibility for, including control and removal of, and shall indemnify and hold Contractor harmless from and against any loss or damage arising directly or indirectly from pollution or contamination other than as set forth in (a) above which may result from fire, blowout, cratering, seepage or any other uncontrolled flow of oil, gas, water, or other substance during the conduct of operations. Operator shall further assume responsibility for and shall indemnify and hold Contractor harmless against any pollution or contamination arising from the use or disposition of all oil emulation, or chemically treated drilling fluids, contaminated cuttines, lost disculation and fish recovery materials and fields as well as the furnishing of containers, transporting and disposition of any containerized material when such are required; provided, however, that in the event of willful misconduct or grossly negligent act or omission of Contractor's

Personnel which is the sole cause of pollution due to uncontrolled flow, Contractor shall be liable for such damages, losses and liabilities up to a maximum of \$100,000 and Operator shall hold Contractor harmless for any excess amounts.

#### 1007. Liability for the Well

Operator shall be liable for the cost of regaining control of any wild well, as well as the cost of removal of debris, and shall indexnify Contractor for any such cost.

#### 1008. Liability for Underground Damages

Operator agrees to defend and indemnify Contractor for any and all claims against Contractor resulting from operations under this Agreement on account of injury to, destruction of, or loss or impairment of any property right in or to oil, gas, or other mineral substance or water, and for any loss or damage to any formation, strata, or reservoir beneath the surface of the earth.

#### 1009. Bottom Conditions

Operator shall conduct a seabed survey on all locations and shall ensure that each location including anchor pattern, is free and clear of obstacles including pipelines and Operator agrees to indemnify, defend and bold Contractor harmless from and against any and all liability, damages, claims, demands, costs and expenses of any nature resulting from Operator's failure to provide such locations free of obstacles.

#### - 1010. Conteduential Damages

:Wither party shall be liable to the other for special, indirect or consequential damages resulting from or arising out of this Agreement, including, without limitation, loss of profit or business interruptions, RSSEGER said said 56 caused.

#### 1911: Indomnities

It is agreed and understood that the responsibilities and indc ity obligations of each party as set forth in this Article X shall, unless otherwise specifically provided therein, apply to any and all such damages,

losses, injuries, liabilities, claims or demands without limit and without regard to the cause or causes thereof including without limitation the negligence, whether sole, concurrent, gross, active, passive, primary or secondary, or the wilful act or omission of either party or any other person or firm, or otherwise.

#### ARTICLE XI - INSURANCE

#### 1101. Contractor's Insurance

Contractor shall carry and maintain the insurance shown in Appendix

D. Contractor may from time to time with the prior approval of Operator change the insurance required to be carried hereunder.

#### 1102. Certificates of Insurance

Contractor will furnish Operator, on request, with certificates of insurance evidencing the coverages required to be carried by Contractor hereunder.

#### 1103. Waiver of Subrogation

Each party's insurances shall be endorsed to provide that the underwriters waive their right of subrogation against the other party or that the other party is included as a named insured thereunder.

#### ARTICLE XII - SUBLETTING AND ASSIGNMENT

#### 1201. Subcontracts by Operator

Operator may employ other contractors to perform any of the operation or services to be provided or performed by it according to Appendix C.

#### 1202. Assignment

Neither party may assign this Agreement to anyone other than an affiliated 8F SUBSidiary company without the prior written consent of the other; and prospect Addition of any such intent to assign shall be given to the other party. In the event of such assignment, the assigning party shall remain liable to the other party as a guarantor of the performance by the assignee of the terms of this Agreement.

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#### ARTICLE XIII - NOTICES

#### 1301. Notices

Notices, reports and other communications required or permitted by this Agreement to be given or sent by one party to the other shall be delivered by hand, telexed, or telegraphed to:

Operator's Address:

Mobil Oil Canada, Etd. Post Office Box 800 Calgary, Alberta T2P 2J7 Canada Attention: Operations Manager Telex 803825567

Contractor's Address:

Odeco Drilling of Canada Limited 700 Aquitaine Tower 540 Fifth Avenue S.W. Calgary, Alberta Canada

with copy to:

Odeco International Corporation Post Office Box 61780 New Orleans, Louisiana 70161 Telex #58-4124

as the case may be, and shall be deemed to have been received as follows:

- (a) Personally served notices shall be deemed received by the addressee when actually delivered provided such delivery shall be during normal business hours, or
- (b) by telegraph (or by any other like method by which a written and recorded message may be sent) directed to the party on whom they are to be served at the party's address hereinbefore given. Notices so served shall be deemed received by the addressee thereof sight (8) hours after the time of transmission or at the dommencement of the next ensuing normal business day, whichever is the later.

Bither party may, by notice to the other party change its

#### ARTICLE XIV - GENERAL

#### ifal. Contidential Information

All information obtained by Contractor in the conduct of operations hassaudes; including but has limited to, depth, formations penetrated, the results of coring, testing and surveying shall be considered confidential and Contractor shall use its best endeavours to ensure that such information is not divulged by Contractor or its employees to any person, firm or desporation other than Operator's designated representatives. This

obligation shall survive the termination of this Agreement. Contractor shall obtain Operator's approval prior to allowing any third party visitors on board the Drilling Unit.

#### 1402. Force Majeure

Subject to Clause 808, each party to this Agreement shall be excused from complying with the terms of this Agreement, except for the payment of moneys when due, if and for so long as such compliance is hindered or prevented by riots. strikes, wars (declared or undeclared), insurrections, rebellions, terrorists acts, civil disturbances, dispositions or order- of governmental authority, whether such authority be actual or assumed, acts of God (other than adverse sea or weather conditions), inability to obtain equipment, supplies or fuel, or by any other act or cause which is reasonably beyond the control of such party, but specifically excluding financial distress, such causes being herein sometimes called "Yorce Majeure". If any failure to comply is occasioned by a governmental law. gule, regulation, disposition or order as aforesaid and the affected party is operating in accordance with good oilfield practice in the Operating Area and is making reasonable effort to comply with such law, rule, regulation, disposition or order, the matter shall be deemed beyond the control of the affected party. In the event that either party hereto is rendered unable, wholly or in part, by any of these causes to carry out its obligation under this Agreement, it is agreed that such party shall give notice and details of Force Majeure in writing to the other party as promptly as possible after its occusionse. In such cases, the obligations of the party given the notice shall be suspended during the continuance of any inability so caused except that Operator shall be obligated to pay to Contractor the Force Majeure Rate provided for in Article 808 (Force Majeure Rate).

#### 1403. Right. ta. Audie

Contractor shall keep proper books, records and accounts of SPEFEEIGHA NATEURALE and shall permit Operator at reasonable times within two [2] Years from the Termination Date to inspect and audit the portions thereof related to any variation of the rates hereunder or to any item or service provided by Contractor for Operator on a cost-reimbursable basis.

#### 1404. Maivers

It is fully understood and agreed that none of the requirements of this Agreement shall be considered as valved by either party unless the same is done in writing, and then only by the persons executing this Agreement, or other duly authorized agent or representative of the party.

#### 1405. Entire Agreement

This Agreement supersedes and replaces any oral or written

communications heretofore made between the parties relating to the subject

matter hereof.

#### 1406. Enurement

Charles C. Worden

This Agreement shall enure to the benefit of and be binding upon the successors and assigns of the parties.

IN WITHESS WEEKEOF, each party has executed this Agreement as of the date shown above.

TO WIT:	OF ALBERTA)
	I, CHARLES C. WOODRUFF OF the Ciry
otC	ALGARY , in the Province of Alberta,
0	(Occupation) , MAKE OATH AND SAY:
1.	THAT I was personally present and did see
	ARTHUS M. MEARS named in the within
	instrument, who is personally known to me to be the person
	named therein, duly sign and execute the same for the pur-
	poses named therein.
2.	THAT the same was executed at theofof
	CALCARY in the Province of Alberta, and that I
	am the subscribing witness thereto.
3.	THAT I know the said ARTHME M MCARS and he is
	in my belief of the full age of eighteen years.
SWORN be	efore me at the Ciry
	Creany in the Merch Mondo with
ot	
of	of Alberta, this 297
of Province day of F	Calendy in the Chille Called of Alberta, this 2970  A.D. 1980.

A Notary Public in and for the Province of Alberta.

Hacey D. Wassen

#### APPENDIX B

#### PERSONNEL SCHEDULE

#### PERSONNEL TO BE SUPPLIED BY CONTRACTOR

Contractor will furnish the following number and classifications of personnel to operate the Drilling Unit and drilling equipment. Operator shall reimburse Contractor's hourly-rated personnel for overtime resulting from offshore transportation delays, overtime in excess of normal work schedules when requested by the Operator, and travel time to and from the Drilling Unit from the Operator's designated land location.

_	Number of personnel			
Classification	At Shore Base	On Board	Total Assigned	
Manager/Superintendent	1	As required	1	
Administrative Assistant	1	N/A	1	
Materialsman/Expeditor	1	N/A	1	
Toolpusher*		1	2	
Assistant Toolpusher*		1	2	
Driller	~	2	4	
Derrickmen		2	4	
Floormen		8	16	
Motormen		2	4	
Crane Operator		2	4	
Roustabouts		10	20	
Welder		1	2	
Rig Mechanic		1	2	
Rig Electrician		1	2	
Barge Master*		1	2	
Ballast Control Room Operator		2	4	
Rig Medic/Clerk (IRR)		1	2	
Radio Operator		· 2	4	
Sub Sea Engineer		1	2	
Total .		38		
mai'l ma		- 1		

In addition to the above, Contractor will employ the required catering staff on the Drilling Unit and necessary personnel and labor required on shore in Contractor's office to carry out the operation efficiently and safely.

Work Schedule:

All Drilling Unit personnel will work on a 28-day "on" and 28-day "off" schedule. The regular hourly work schedule on board the Drilling Unit will be twelve (12) hours per day (6:00 am -6:00 pm). Employees designated above by an asterisk are not subject to overtime except for transportation delays or delays requiring extra days beyond normal days on board the Drilling Unit. Changes to the work schedule shall only be made with the prior consent of Operator.

Overtime:

Operator will only pay for overtime work when authorized by its representative for work on Operator equipment or for a third party. Overtime work required to repair Contractor's equipment will normally be at Contractor's sole cost.

Catering:

Contractor shall provide meals and lodging on board the Drilling Unit at no additional cost to Operator for (3) three Operator or Operator third party personnel. All meals and lodging for Operator and Operator third party personnel in excess of three shall be reimbursed by Operator at Contractor's cost.

Hiring of Ledal Person el:

Gentractor shall wherever possible consistent with the safety and efficiency of the operations continued hereunder employ residents of the Province of Newfoundland. Any increased cost incurred by Contractor as a result of compliance

with any law or regulation of any government of competent jurisdiction requiring the training or employment of local personnel beyond those listed in this Appendix shall be borne by Operator.

## MOBIL OIL CANADA, LTD. EAST COAST OFFSHORE

Exhibit 22

## CONTINGENCY PLANS AND EMERGENCY PROCEDURES

(Excerpts From Full Plan)

4161/32

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### SECTION 1

## INTRODUCTION

1,1	PURPOSE AND SCOPE
1.2	CLASSIFICATION SYSTEM
1.3	JOB DEFINITIONS
1.4	CHAIN OF COMMAND
15	EMERGENCY ALITHORIZATION

#### 1.1 PURPOSE AND SCOPE

This manual contains Mobil Oil Canada's policies, plans and procedures for use by Company employees at all levels of reponsibility, as a guide during extraordinary situations. This document, along with out Oil Spill Contingency Plan, will be available on each drilling rig and in each office concerned with Mobil's offshore operations. In addition, a copy will be supplied to key Federal and Provincial regulatory agencies.

The necessity of adequate pre-planning is obvious. It gives rig personnel guidelines to follow and aid in their decision making, where due to time constraints or poor communications, it is not possible to discuss the situation with their superiors. A formulated, agreed-upon plan allows rapid mobilization of experienced personnel to ensure on-site supervisors have access to their expertise. Management are provided with a plan to ensure acequate communications at all levels. The plan also provides a check-list to follow in decision-making.

In some circumstances, it is possible to formulate a detailed step-by-step procedure. In other circumstances, because of the number of possible alternatives, it is only possible to give an outline action plan. For ease of reference wherever possible each plan or procedure is written as a single unit. In our estimate this gives the most convenient and consistent format, where rapid access to information is required.

It is Mobil's philosophy that suitable safety precautions and conservation practices should be used to prevent emergencies before they occur. If an emergency does occur as a result of our operations it is our intention to make every reasonable effort to handle the emergency within the minimum time frame.

In deciding on the particular course of action to be used, it should be remembered that the safety and protection of human life is paramount.

#### -1.2 CLASSIFICATION SYSTEM

In our plan, emergencies and disasters have been given a code classification. This allows a system for rapid communication of the essential details of the problem to people and departments. Some action plans require more detailed procedural guidelines; where this is the case, they have been provided. Subclasses of different codes are used where required to clarify the problem. The codes used for reporting are as follows:

CODE 1 - Personnel Injury or Death

CODE 2 - Uncontrolled Well Flow

CODE 3 - Rig Damage or Threat of Rig Damage

CODE 4 - Ship sunk, sinking or missing in Vicinity of Rig

CODE 5 - Aircraft Down or Missing

It should be noted that oil spills do not fall into this code system. It is felt that due to the importance and scope of oil spills, it is best handled as a separate plan.

Section 4 of this manual entitled Oil Spills contains a reference to the applicable manual. It has been placed in this volume for reference only. Operations personnel may choose to put the action plan from their area in this section.

#### 1.3 JOB DEFINITIONS

To avoid confusion in terminology, the following titles are used thoroughout this manual. An indication of the area and responsibility is also given for each job title.

East Coast Manager: Mobil's Senior Representative on the East

Coast responsible for all offshore opera-

tions.

Environmental Co-Ordinator: Mobil's advisor on the East Coast for

environmental matters.

Engineering Supervisor: Mobil's representative on the East Coast

responsible for all engineering activities in

an operational area.

Area Drilling Superintendent: Mobil's representative on the East Coast

responsible for all drilling operations in the

area.

Drilling Co-Ordinator: Mobil's representative responsible for all

drilling operations on the Scotian Shelf.

Drilling Supervisor: Mobil's representative responsible for day-

to-day drilling activities in an operational

area.

Drilling Foreman: Mobil's representative on the well responsi-

ble for the day-to-day drilling operation.

Services Supervisor: Mobil's representative responsible for co-

ordinating logistics, supply and communi-

cations in the area.

Service Foreman: Mobil's representative for co-ordinating

logistics, supply and communications in an

operational area.

Accounting Supervisor:

Mobil's representative on the East Coast responsible for the accounting functions in the area

Accounting Representative:

Mobil's representative on the East Coast responsible for the accounting function for an operational

area.

Rig Manager/ Rig Superintendent

Contractor's senior Representative at an operations base, having overall responsibility for the riginal

crews.

Barge Captain:

Captain on the drilling vessel, where the rig is either dynamically positioned or self propelled. Where this is not the case, his duties would be assumed by the

Rig Toolpusher.

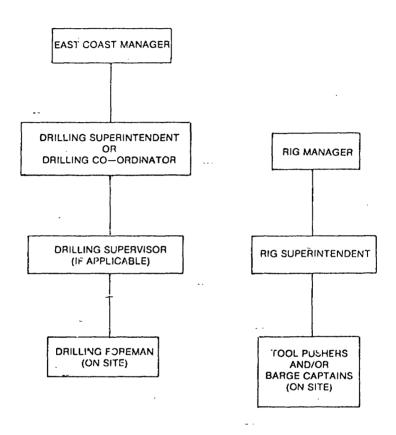
Rig Too!pushers:

Contractor's Senior Representative on the well

responsible for day-to-day rig operations.

#### 1.4 CHAIN OF COMMAND

The following chain of command will normally be followed in our operation.



August, 1980

1.4.1 The Drilling Foreman is Mobil's On-Site representative. His normal areas of  $\langle \phi_{i} \rangle \gamma_{ij}$  responsibility include the following: 

. 7:5

- Providing the logistical co-ordination between the rig and Mobil supplied support facilities, to ensure adequate supply of men and materials to the drilling unit.
- Ensuring that Mobil's policies and procedures contained in this document, the detailed Drilling Program, or as outlined by the Area Superintendent are carried out on the drilling unit to the best of contractor's capabilities.
- Ensuring that the contractor and all service personnel fulfil the terms of their contractual relationship, and act at all times in accordance with Governmental Regulations.
- Acting as an observer on behalf of Mobil in situations where there is an imminent threat of damage or loss to the contractor's drilling unit.

- 1.4.2 Mobil do not define the responsibilities of a contractor's senior on-site supervisors, but the following generalities can be outlined.
  - i. Barge Captain
    - On a drilling unit capable of being operated as a vessel, the Barge Captain has the repsonsibility at all times for the safety of the vessel under his charge, and all the people on it. In situations of imminent threat of severe damage to, or loss of the contractor's drilling unit, his authority supercedes that of all other on-site personnel.

#### Big Toolpushers

- Ensure that the Mobil supplied programs and procedures are executed by contractor's personnel to the best of their abilities, as requested by Mobil.
- Has responsibility for the contractor's equipment and personnel while the rig is in the arilling mode, except as noted above.

#### 1.5 EMERGENCY AUTHORIZATION

It is not Mobil's intent to run the operation from a shore location. Wherever possible on-site personnel are expected to keep shore based staff involved in the decision making process, to ensure the best possible decision is made. In emergency situations, the Drilling Foreman, Barge Captains and Rig Toolpushers will confer together and formulate the best possible plan to alleviate the situation. They will notify their respective superiors at the first opportunity.

August, 1980

-- 3. .

# SECTION 2

# **ORGANIZATION CHARTS**

2.1.1	MOBIL EAST COAST ST. JOHN'S
2.1.2	MOBIL EAST COAST — HALIFAX/DARTMOUTH
2.1.3	MOBIL GENERAL EMERGENCY TASK FORCE — CALGARY
2.2	FEDERAL E.M.R. — OTTAWA
2.3	NEWFOUNDLAND DEPARTMENT OF MINES AND ENERGY
2.4	NOVA SCOTIA DEPARTMENT OF MINES
2.5	DRILLING UNIT  — ORGANIZATION OF MOBIL PERSONNEL AND SERVICES  TYPICAL RIG ORGANIZATION CHARTS
2.6.1	FLOATING DRILLING RIG — DRILLING MODE
2.6.2	FLOATING DRILLING RIG — UNDER TOW AFTER EMERGENCY DISCONNECT
2.6.3	JACK-UP DRILLING RIGDRILLING MODE
2.6.4	JACK-UP DRILLING RIG — UNDER TOW

FIGURE 2.1.1
MOBIL EASTCOAST - ST. JOHN'S

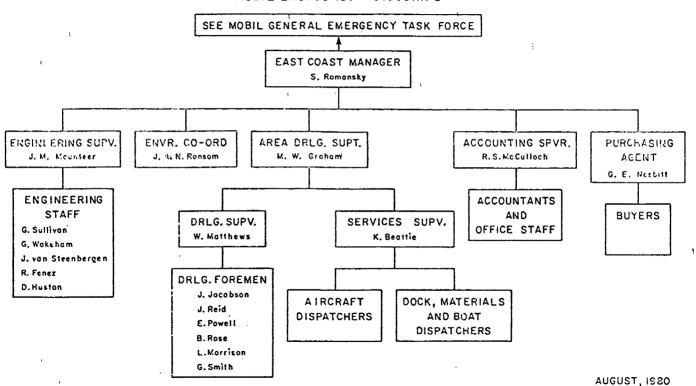


FIGURE 2.1.2

MOBIL EAST COAST - HALIFAX / DARTMOUTH

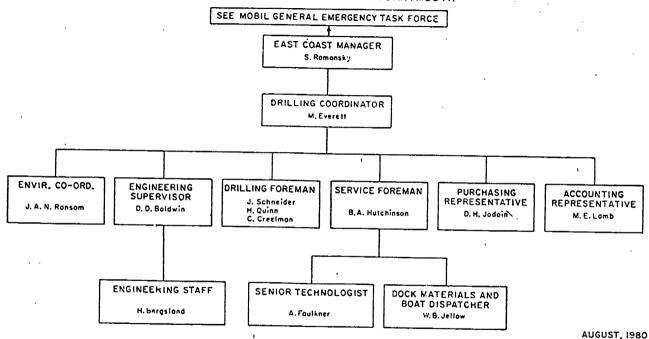


FIGURE 2.1.3

MOBIL GENERAL EMERGENCY TASK FORCE - CALGARY

(REPRESENTATIVE ORGANIZATIONAL STRUCTURE)

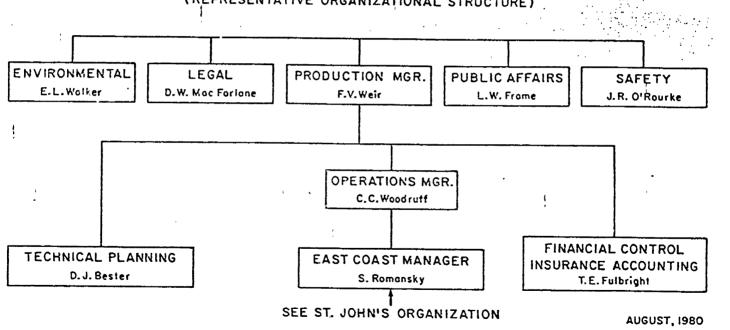
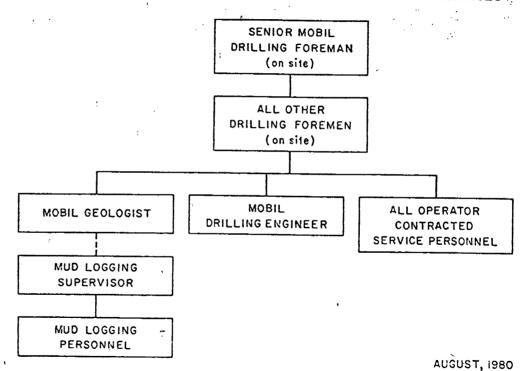
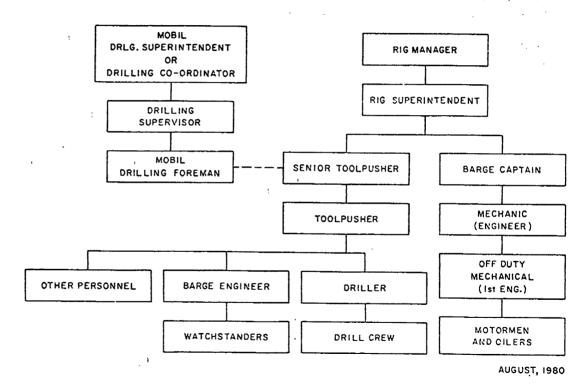


FIGURE 2.5

DRILLING UNIT - ORGANIZATION OF MOBIL PERSONNEL & SERVICES



FLOATING DRILLING RIG DRILLING MODE



FLOATING DRILLING RIG - UNDERTOW AFTER EMERGENCY DISCONNECT

FIGURE 2.6.2

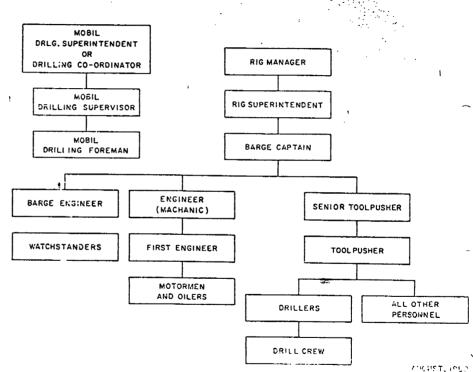


FIGURE 2.6.3

JACKUP DRILLING RIG - DRILLING MODE

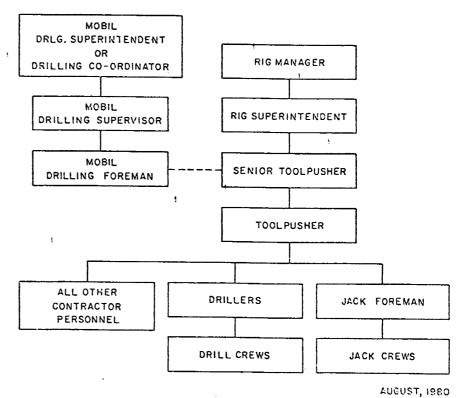
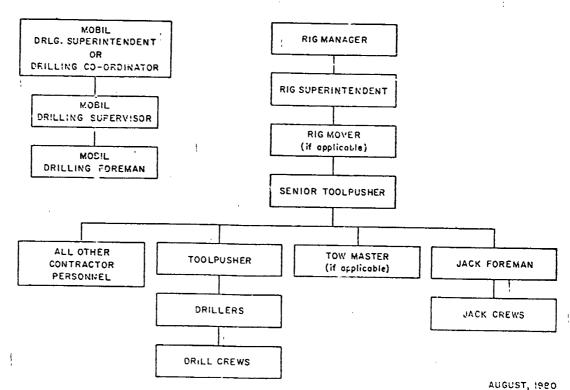


FIGURE 2.6.4

JACKUP DRILLING RIG - UNDERTOW



# **CODE SYSTEM USED**

		Section
CODE 1.	PERSONNEL INJURY OR DEATH.	3.4-3 5
,	Class 1 — All Personnel Except Divers.	3.4
	Class 2 - Divers.	3.5
CODE 2.	UNCONTROLLED WELL FLOW.	3.6
	Class 1 — No Threat of Fire.	
	Class 2 — Threat of Fire or Fire on Board.	-
CODE 3.	RIG DAMAGE OR THREAT OF RIG DAMAGE.	3.7
	Class 1 — Fire and/or Explosion.	
	Class 2 — Collision.	
	Class 3 — Heavy weather.	
CODE 4.	SHIP SUNK, SINKING OR MISSING IN RIG VICINITY	3.8
	Class 1 — Contracted Supply Vessel.	
:	Class 2 — Other Ships.	
	••	
CODE 5.	AIRCRAFT DOWN OR MISSING.	3.9-3.10
	Class 1 — Helicopter.	3.9
	Class 2 Aircraft.	3.10

**SECTION 3.7** 

#### CODE 3 - CLASS 1 AND CLASS 2

#### RIG DAMAGE OR THREAT OF RIG DAMAGE

Class 1 — Fire or Explosion
Class 2 — Collision

#### Drilling Foremen/Toolpushers

- 1. Call standby boat.
- Take steps to minimize injuries. Consider use of Brucker capsules or evacuation to standby boat (Complete or partial). Be conscious of water depth and boat limitations.
- 3. Ensure adequate first aid.
- 4. Take reasonable non-hazardous steps to minimize loss of equipment
- Report emergency to E.C.O.
- Prepare list of personnel.
- Document all events.
- 8. Provide supplemental reports as necessary (if possible, use Telecopier).

#### Standby Boat

- Prepare to take all personnel off rig.
- Consult with Barge Captain or Drilling Foreman and report International MAY DAY if requested.
- 3. Report emergency to E.C.O. if rig does not or cannot do so

#### CODE 3 CLASS 1 OR 2

#### RIG DAMAGE OR THREAT OF DAMAGE

# **Emergency Communications Officer**

1. Begin a log of all calls

#### 2. Pass report to

<ul> <li>Drilling Superintendent (if applicable)</li> </ul>	8#
- Drilling Co-ordinator	н1
- Contractor Rig Manager	
- Services Supervisor/Foreman	#11 or #3
— Area Manager	#6 or #14
- Engineering Supervisor	#2 or #10

- If E.C.O. is the Dritting Superintendent or Dritting Co-ordinator, delegate this responsibility to a subordinate
- 4. New E.C.O should advise rig of change of status, at first opportunity
- 5 Proceed to office if required
- 6. Maintain communications between rig and base as required.

# CODE 3 CLASS 1 AND 2

# RIG DAMAGE OR THREAT OF DAMAGE

# East Coast Manager

1.	If first contact, delegate responsibilities of E.C.O. to a subordinate.		
2.	If Drilling Superintendent/Drilling Co-ordinator cannot be contacted, assume his duties until he is available.		
3.	Proceed to office.		
4,	Review plans and set up a reporting scheudle to ensure efficient operations.		
5.	Inform Operations Manager.		
6	Assess need for relief wells and well planning.		
<b>7</b> .	Assess manpower requirements, suggested alternates are shown below:		
	POSITION	ALTERNATES	
• .	Drilling Superintendent	J. Routledge (Edmonton) M. Rushfeldt (Edmonton)	
•	Engineering Supervisor	S.V. Leisemer (Calgary) G.W. Stuart (Calgary)	
	Accounting Supervisor	W. Lockhart (Calgary) W. Barth (Calgary)	
	Drilling Supervisor	D.C. Moore (Edmonton)	
8.	Activate major emergency task force if required.		
9.	Co-ordinate government response team (National Marine Emergency Plan (NMEP)) in the following:  — timing if they see fit to take over operational control  — co-ordination with our staff in case of above		
10.	Conduct additional duties as listed for Class 2 if situation warrants.		

# CODE 3 CLASS 1 OR 2

# RIG DAMAGE OR THREAT OF DAMAGE

# **Drilling Superintendent/Drilling Co-ordinator**

•	If first contact, delegate this responsibility to a subordinate.
2.	If E.C.O. and Manager cannot be contacted assume his duties until he is available.
3.	Proceed to office.
4.	Report to Mobil East Coast Manager if not already notified.
5.	Obtain names of all injured/dead Mobil, Drilling Contractor, Rig and third party personnel.
6.	Inform E.M.R. (Operations) St. John's or Dartmouth. #27 or #31
7.	Inform Provincial Government. #44 or #52
8.	Prepare draft preliminary Public Report of the disaster and pass on to Public Relations Advisor in Calgary (if required). #21
9.	Inform Insurance Department in Calgary (if required). #23
10.	Inform Legal Department in Calgary (if required). #22
11.	Proceed according to Supervisor's Handbook "Notification Procedures for Death/Injury to Mobil People" if necessary.
12.	Conduct additional duties as listed for Code 2 and Class 1 and 2 if required.

#### **SECTION 3.7**

# CODE 3 CLASS 1 OR 2

#### RIG DAMAGE OR THREAT OF DAMAGE

# Service Supervisor/Services Foreman

- 1. Proceed to office and obtain update from E.C.O.
- 2. Check helicopter status
- 3. Check boat status
- 4. Arrange transporation as directed
- 5. Check weather status
- 6. Arrange personnel to assist in supply and handling material if required
- Document all events.

#### **SECTION 3.7**

#### CODE 3 CLASS 1 OR 2

#### RIG DAMAGE OR THREAT OF DAMAGE

#### **Engineering Supervisor**

Proceed to Mobil Office and obtain update from E.C.O
 Alert Engineering Staff if required.
 Call Technical Planning Manager if required. #18
 Arrange for stenographer to come to the office and document the events, actions to be taken, and commitments.
 Continue surveillance and documentation of events.
 Assign Engineering staff to assist Drilling Foreman as required.

### CODE 3 CLASS 1 OR 2

#### RIG DAMAGE OR THREAT OF DAMAGE

#### Safety Advisor

1. Immediately proceed to East Coast's Office if required.

#### Public Relations Advisor

- Review draft preliminary Public Report on disaster submitted by Drilling Superintendent/Drilling Co-ordinator.
- 2. Prepare release for news media.
- 3. Obtain approval for release and timing of news release.
- 4. Proceed to East Coast's Office (if required).

#### **Operations Manager**

1. Inform Producing Manager.

#### Rig Manager

- 1. Advise Contractor's Head Office.
- 2. Report to Mobil Office.
- 3. Inform his staff (including off duty Toolpushers).
- 4. Assist in planning control of emergency.

SECTION 3.7

#### CODE 3 - CLASS 3

#### **HEAVY WEATHER**

#### **PROCEDURES**

# 1. Drilling Foremen/Toolpushers

- Proceed according to Drilling Contractor's and Mobil's weather and superstructure icing procedure.
   Found in Sections 7 and 8 of their manual.
- Call Drilling Superintendent at first opportunity.

#### 2. Drilling Superintendent

 Consult with necessary staff together with Rig Manager to decide appropriate plan of action and possible rig evacuation

**SECTION 3.8** 

#### TO USE THIS PLAN

1.	٠.	FIND	YOUR	JOB	TITL	3

- 2. ACTIONS ARE GIVEN IN NUMERICAL SEQUENCE.
- 3. PHONE LIST IS IN LAST SECTION. ALL TELEPHONE NUMBERS, JOB TITLES AND CONTACT NAMES HAVE BEEN NUMBERED FOR EASE OF REFERENCE.

# Exhibit &L

SERVICE	UGLAND	SEDCO 706	OCEAN RANGER
		705	
DRILLING VESSEL	ZAPATA	SEDCO 706	00000
HELICOPTERS .	OKANAGAN	OKANAGAN	OKANAGAN
SUPPLY VESSELS	CROSBIE	CROSBIE	CROSBIE
ICEBERG MONITORING VESSEL .	CROSBIE	CROSBIE	CROSBIE
MUD CAS LOGGING	ANALYST	BAROID	ANALYST
DRILLING FLUID ENGINEERING	MAGCOBAR	MAGCOBAR	BAROID
DRILLING FLUID PRODUCTS	MAGCOBAR	MAGCOBAR	BAROID
ELECTRIC LOGGING	SCHLUMBERGER*	SCHLUMBERGER	SCHLUMBERGER
CEMENTING SERVICES AND PRODUCT	HALLIBURTON	DOWELL	HALLIBURTON &
SURFACE PRODUCTION TESTING	JOHNSTON TESTERS	WEATHERLY	PORTA-TEST
DOWNHOLE PRODUCTION TESTING	JOHNSTON TESTERS	JOHNSTON TESTERS	JOHNSTON TESTERS
CORING	CHRISTENSEN	CHRISTENSEN	CHRISTENSEN
VELOCITY	CENTURY	CENTURY	CENTURY
DIRECTIONAL SURVEYING	EASTMAN	SPERRY SUN	SPERRY SUN
WEATHER FORECASTING	NORDCO	NORDCO	NORDCO
ICEBERG WATCH	MacLAREN MAREX	MacLAREN MAREX	MacLAREN MAREX
CUSTOM BROKERS	P.F. COLLINS	P.F. COLLINS	P.F. COLLINS
SURVEY	NCELHANNEY	MCELHANNEY	MCELHANNEY
DIVING	K.D. MARINE	CAN DIVE	HYDROSPACE

**4**9

officer in Charge taring Imspection Office John O. Pastore fed. 3ldg. Providence, RI 02903 Tel: 401-528-4335

16711 1d December 1979

Ocean Drilling & Exploration Co. P.O. Box 61730 New Orleans, LA 70161 Attention: Or. Terry Petty

Subj: .NOU "OCEAN RANGER" 373' x 262' x 151' Seni-Subcersible Drilling Unit Non-Classed Inspection for Certification

#### Gentlemen:

An initial inspection was conducted on subject drilling unit from 4 through 14 December 1979. The following items are required to be completed prior to issuing a U. S. Coast Guard Certificate of Inspection:

- 1. Provide an FCC certificate for radios (vessels and lifeboat)
- 2. Provide and install an Emergency Position Indicating Radio Seacon (EPIRS)

  Provide certificate of servicing for portable fire extinguishers
- Provide two (2) firemens' outfits
- Stencil lifejacket lockers and remote fuel shutoffs.
- 6. Tast number 2 boiler low vater cutout
- 7. Provide adequate MESA approved first aid kit for 100 persons
- Ar Register vessel as a U. S. vessel (obtain Official Number)

The following items to be completed priot to 15 January 1980 or issuance of Certificate of Inspection, whichever is later:

- Provide CG approved ring buoys (8 required)
- 2. Provide CG approved lifeboat provisions for both lifeboats
- 3. Provide two CG Approved snoke floats to be attached to ring buoys
- Paint belicopter landing deck with non-skid paint
- 5. Mark general alarm with signs as per 46 CFR 108.625
- 6. Mark CO2 alarms with signs as per 108.627 7.
- Hark liferafts with signs as per 108.655
- Inspect and repair fire detection system
- Add an adequate west for the CO2 room
- 10. Provide wind direction indicator for helo deck
- 11. Hark access to helo deck with warning signs (all three accesses)
- 12. Replace interior fire hose with CG approved hose and CG approved combination possies(after system to receive these hoses)
- 13. Provide International anora connection
- 14. Post fueling procedures

45. comply with swrine sortable tank (APT) relales Operate fook system take a souple and have it analyzate

To be accomplished prior to bringing fuel about tor helicipter refuelic,

- i. Install renote fuel pump shurdown at main access.
- 2. Tark tool hose storage in accordance with regulation.
- 3. Take visible the fuel pump operation indicator light.

To be accomplished prior to 1 June 1930 or issuance of Certificate of Inspection, whichever is later:

- 1. Install a second raist independently powered from the existing one.

  Subsit for review by the Commandant, UCCC, plans for special survey of underwater body, and accomplish special survey on requires.
  - 3. Subsit for review and obtain approval of Fire Control and Safety Plan-

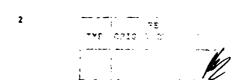
To be done prior to next inspection for Certifications

- Comply with 46 CFR 108.506 davit launched liferafts of acceptable substitute.
- Jeplace lifeboats and davits with CG approved or obtain approval for existing ones.
- 3. Obtain approval of fixed CO2 systems
- 4. Obtain CC approval of fire detection system.

All above items to be completed to the satisfaction of the cognizant Officer in Charge, Harine Inspection.

Sincerely,

R. A. SUTHERLAND Captain, U. S. Coast quard Officer in Charge, Marine Inspection



O RANGER
CURRENT
FILE

VALUEDO SA DESTEE

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فور معادد الشهاف بهادي

Attn: Mr. T.D Parry

Vice-Pres.

7th dovamber 1979

Odeco Eng.Inc. Odeco Bldg. 1600 Canal St. Rosa 609 P.O. Tox 61/80 New Orleans, LA. 70161 U.S.A.

Re: "CCEAN RANGER"

Reg.Panama Gross Tonnage 14,914

10#7601702

Your P/O 0110, Mr.A. Horkins

Genelemen:

We enclose our Report and Certificates VA/729, VA7/30, VA//30-X, VA7730-X-1, dated 5th July 19/9 (Underwater Inspection in lieu of DD, Special Survey No.1-Hull, Mach., Electrical Appar., Annual Survey-Hull & Mach., Annual Loadline Inspection, Provisional LL Cert., Winch Drum Mod.); together with our covering Invoice 563691 dated 7th November 1979, in amount of \$11,454.00 Canadian Currency, in connection with the above drilling unit.

Yours very truly,

AMERICAN GUREAU OF SHIPPING

G. Fenwick, Senior Surveyor.

GF:gs Encls.

# American Bureau of Shipping

65 BROADWAY, NEW YORK, N.Y. 10006

#### REPORT NUMBER YA7729

YANCOUVER, B.C., CANADA 5TH JULY 1979

#### "OCEAN RANGER"

THIS IS TO CERTIFY that the undersigned Surveyor to this Sureau did, at the request of the owner's representative, attend the twin screw column stabilized drilling unit "OCEAN RANGER" of Panama, R.P., Gross Tonnage 14,914 10#7601702, while the vessel lay afficat at Port Alberni, B.C., Canada, on the 11th day of May 1979 and subsequent dates, in order to examine and report upon the condition of the vessel relative to:

- UNDERWATER INSPECTION IN LIEU OF DRYDOCKING
   SPECIAL SURVEY NO. 1 OF HULL
   SPECIAL SURVEY NO. 1 OF MACHINERY
   SPECIAL SURVEY NO. 1 OF MACHINERY
   ANNUAL SURVEY HULL AND MACHINERY
   ANNUAL LOADLINE INSPECTION
   WINCH DRUM HODIFICATIONS

For further particulars, see report as follows

For outstanding recommendations contained in Vencouver Report VA7476 dated 13th January 1979, regarding PC2 Portside Boat Sumper, which were completed, examined, and tested in accordance with the Rule requirements, see Yancouver Report VA7728 dated 6th March 1979. 11

#### UNDERWATER INSPECTION IN LIEU OF DRYDOCKING

- With the semi-submersible in the light draught condition, the exposed portions of the lower hulls, including column's foot and diagonal brace connections and the upper two feet of the lower hulls were examined and 2) found satisfactory.
- The diagonal brace connections, where surfaces are exposed to the sea, were examined internally and all surfaces were found well coated and paint intact. Sacrificial anodes where fitted showed negligible wast-3)
- The propeller, exposed parts of the stern bearing assembly, rudder pintle and guageon securing arrangements were examined and found satisfactory.
- The rope guard was removed, port and starboard, and the stern bearing seal and rudder bearings were examined and talishaft clearances measured. Original gauges were not available and new gauges were machined to original specifications, measurements recorded as follows: 5)

This Certificate is granted subject to the condoon that it is understood and agreed that neither the Burseu nor any of its Committees nor any of at Officers. Surveyors, Agents or Employees is under any circumstances whatever to be held responsible for any necourticy in any report or certificate issued by this Burseu or its Surveyors or in any entry in Record or other publication of the Burseu or for any of its or their errors of judgment default or negigence.

Form A.B. 141 Rev. (12/78)

-2-

VANCOUVER, B.C., CANADA STH JULY 1979

#### "OCEAH- RANGER"

# UNDERWATER INSPECTION IN LIEU OF DRYDOCKING

#### 5) Tallshaft readings:

	Starboard	Port
Original reading	6.732"	6.740"
Present reading	6.750"	6.733"
Difference	0.018"	0.007"

These readings are considered satisfactory.

An underwater examination of the two lower hulls was carried out by a team of divers, equipped with television and videotape equipment and in communication with the undersigned. The diver started his inspection at the bow section of the port and starboard pontoons and summarriesly across the hulls covering their entire length to the stern. Visability was ten to twelve feet near the surface and improved slightly near the bottom of the hull. 6)

#### Starboard Pontoon Observations:

- Heavy marine growth on bottom of hull.

   Barnacle growth on sides of hull, about 70% coverage.

   Minor paint fouling in scattered areas, no corrosion.

   No damage or irregulatories in hull.

   All serificial anodes in place and negligible westage noted.

   All welds appeared in good condition.

   See chest clean except for light barnacle growth on grating which was removed by diver. One bolt missing from sea chest, was replaced at this inspection.

#### - Port Pontoon Observations:

- Heavy growth on bottom of hull.
   Barnacie growth on sides of hull, approximately 70% coverage.
   Minor paint fouling in scattered areas, no apparent corrosion.
   No damage or irregularities in hull.
   All anodes in place and with approximately 90% of life ramining.
   See chest clean except for light barnacie growth on grating which was removed by diver. Five boits were missing from see chest and eight bolts were missing lock weathers. These were all replaced by the diver at this inspection.
   All welds appeared in good condition.
- Forward bow section inboard shell plating in way of the forward column paint scrapped off due to contact with the anchor chain, no apparent indication of corrosion and considered satisfactory. 7)

REPORT NUMBER VA7729

-3-

VANCOUVER, B.C., CANADA 5TH JULY 1979

#### MOCEAN RANGERM

#### UNDERWATER INSPECTION IN LIEU OF DRYDOCKING

- The entire inspection was completed with continuous closed circuit video communication to the surface and selected portions of the inspection were videotaped and the unedited videotapes submitted for the owner's reference. For further particulars, see attached 8) copy diver's report.
- in the opinion of the undersigned, the underwater shell surfaces are in satisfactory condition and <u>IT IS RECOMMENDED</u> that the Underwater Inspection in Lieu of Drydocking be considered camplete. 9)

#### SPECIAL SURVEY NO. ! OF HULL

- 10) The following spaces were examined and found satisfactory:
  - Gree's quarters and accommodation spaces.
     Bulk mud tanks and compartments.
     Gement tanks and compartments.

  - Cofferdams.
     Fuel oil day tank room.
     Deck house.

  - Distiller room.
  - The degasser area. The shellshaker area.
  - The mud return area.
     The pump rooms.
     The store rooms.
     The generator room.
- 11) The following structural areas were examined and found satisfactory:
  - Connections to the main deck, girders, knee bracers.
  - Crane foundations.

  - Crane roundations.
     Heliport structure.
     Hull and internals in way of fairleads and keel coolers.
     Hull and internals in way of outrig type housing racks.
     Internal ring framing and vertical framing.
     Legs and columns connections.
     Legs and columns.
     The main deck plating.
     The main deck bottom plating.
     The delli anal area.

  - The drill well area.
    The substructure of blowout prevention stack.
    The substructure of diving bell.
    The substructure of compensator system.
    The substructure or storage area.
    The truss bracing.

REPORT NUMBER VA7729

VANCOUVER, B.C., CANADA 5TH JULY 1979

#### "OCEAN PANGER"

#### SPECIAL SURVEY NO.1 OF HULL

- The vessel being at anchorage, the twelve anchors and chains were examined as far as practical and found setisfactory. In conjunction with this surey, the following chain lockers were examined and found satisfactory
  - PCIA chain locker port forward #1.
     PCIB chain locker port forward #1.
     PCIG Chain locker port forward #1.
     PCIG Chain locker port aft #4.
     SCIA chain locker starboard forward #1.
     SCIB chain locker starboard forward #1.
     SCIC chain locker starboard forward #1.
     SCIG Chain locker starboard aft #4.
     SCIG chain locker starboard aft #4.
     SCIG chain locker starboard aft #4.
- The bilge collection spaces in the port and starboard hulls main propulsion and pump rooms were examined, together with the bilge alarms system and found satisfactory. 13)
- The production test flow burners were exemined as far as practical and all found satisfactory. 14)
- The venting arrangements and closing appliances were examined and all found satisfactory. 151
- The following tanks were used exclusively for fuel oil were examined externally, found satisfactory and internal inspection waived: 16)
  - ST6, fuel oil tank starboard side. ST12, fuel oil tank starboard side. PT6, fuel oil tank portside. PT12, fuel oil tank portside.
- The following water ballast tanks, port and starboard, located in the lower hulls were opened, examined internally, together with the shall plating deep web frames, longitudinals, bulkheads and all found satisfactory. The sacrificial anodes were examined and found in new condition. The protective paint coatings appeared as in new condition with original paint thickness measurements still clearly visible. There was no indication of marine growth: 17)

  - ST1 beliest water tank starboard side.
     ST7 beliest water tank starboard side.
     ST10 beliest water tank starboard side.
     ST10 beliest water tank starboard side.
     PT1 beliest water tank portside.
     PT4 beliest water tank portside.
     PT10 beliest water tank portside.
     PT16 beliest water tank portside.

-5-"OCEAN RANGER" VANCOUVER, B.C., CANADA 5TH JULY 1979

#### SPECIAL SURVEY NO. 1 OF HULL

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         The following tanks, port and starboard, were examined in accordance with the Rule requirements, all found satisfactory:
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- ST2 ballast water starboard side.
- ST3 ballast water starboard side.
- ST4 ballast water starboard side.
- ST5 drill water (fresh) starboard side.
- ST8 ballast water tank, starboard side.
- ST9 ballast water tank, starboard side.
- ST11 ballast water tank, starboard side.
- ST13 drill water tank, starboard side.
- ST15 ballast water tank, starboard side.
- ST15 ballast water tank, starboard side.
- PT2 ballast water tank, portside.
- PT3 ballast water tank, portside.
- PT5 drill water tank, portside.
- PT7 ballast water tank, portside.
- PT8 ballast water tank, portside.
- PT9 ballast water tank, portside.
- PT10 ballast water tank, portside.
- PT11 ballast water tank, portside.
- PT11 ballast water tank, portside.
- PT15 ballast water tank, portside.
                                                                          ballast water starboard side.
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- The following void spaces were examined in accordance with the Rule requirements and all found satisfactory: 19)
  - ST 17 void starboard side. ST 17 void portside.
- 20) The following tanks located in the columns were examined in accordance with the Rule requirements and all found satisfactory:

```
void port, forward #1.
Annulus port #2.
Void port #2.
Void port #2.
Void port #2.
Void port #3.
Void port #3.
Void port #3.
Void port #4.
Annulus port aft #6.
Annulus port aft No.4.
Annulus port aft No.4.
Annulus port aft No.4.
Void port #4.
Void starboard forward #1.
Annulus starboard forward #1.
- PCID
- PCIE
- PCIF
- PCIG
- PCIH
- PCIJ
- PCZA
               PC2B
               PC3G
PC3A
PC3B
PC3G
PC40
PC4E
               PC4F
PC4G
PC4H
PC4J
SC1D
```

Annulus starboard forward #1.

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VANCOUVER, 8.C., CANADA 5TH JULY 1979

#### "OCEAN RANGER"

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AL SURVEY NO.1 OF HULL

- SC1F Annulus starboard forward #1.
- SC1G Annulus starboard forward #1.
- SC1H Annulus starboard forward #1.
- SC1H Yold starboard forward #1.
- SC2A Void starboard #2.
- SC2B Boast bumper starboard #2.
- SC3B SC3C Void starboard #2.
- SC3C Yold starboard #3.
- SC3B Boast bumper starboard #3.
- SC3G Void starboard #4.
- SC4G Annulus starboard aft #4.
- SC4G Annulus starboard horizontal brace.
- F 12 HP Yold port horizontal brace.
- A 12 HS Yold starboard horizontal brace.
- A 12 HS Yold starboard horizontal brace.
- Y 1P Yold port truss.
- Y 3P Yold port truss.
- Y 3P Yold port truss.
- Y 3S Yold starboard truss.
- Y 3S Yold starboard truss.
- Y 4S Yold starboard truss.
SPECIAL SURVEY NO. 1 OF HULL
    20)
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#### SPECIAL SURVEY NO. 1 OF MACHINERY

- The following pumps were examined in accordance with the Rule requirements, operationally tested and found or placed in satisfactory condition: 21)

  - Nos. 1 through 6 ballast pumps.
     Nos. 1 through 4 bilge pumps.
     Fire pump.
     Emergency fire pump.
     No.1 mmin engine fresh water cooling pump-attached #1.
     No.2 mmin engine fresh water cooling pump-attached #1.
     No.4 mmin engine fresh water cooling pump-attached #1.
     No.4 mmin engine fresh water cooling pump-attached #1.

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YANCOUYER, 8.C., CANADA

#### "OCEAN RANGER"

#### SPECIAL SURVEY NO. 1 OF MACHINERY

- Fuel oil service pumps Nos. 1 through 4.

   Main engine No.1 lube oil pump attached.

   Main engine No.2 lube oil pump attached.

   Main engine No.3 lube oil pump attached.

   Main engine No.3 lube oil pump attached.

   Main engine No.4 lube oil pump attached.

   Lubricating oil service pump #1.

   Lubricating oil service pump #2.

   Lubricating oil service pump #2.

   Lubricating oil service pump.

   Main engine No.1 sait water cooling pump attached #1.

   Main engine No.2 sait water cooling pump attached #1.

   Main engine No.4 sait water cooling pump attached #1.

   No.1 main propulsion motor sait water cooling pump.

   Diesel generator sait water cooling pump.

   Diesel generator sait water cooling pump.

   Steering gear pump port.

   Steering gear pump sterboard.

   No.1 end 2 stern tube lubricating oil pump starboard. 21)
- The Nos. 1, 2, 3, 4, and 5, main diesel generating engines were examined under operating load conditions, operational temperatures and speed control together with safety devices examined and all found satisfactory. In view of the age and low operational hours of these engines and a review of the maintenance records and examination of the log books, <u>further examination was waived</u>. 22)
- The Nos. 1, 2, 3, 4, and 5, main diesel generators engine foundation bolts and chocks were examined and all found satisfactory. 23)
- The port and starboard main line shafting and bearings were examined to Rule requirements and found satisfactory. 24)
- The port and starboard main reduction gear boxes were opened, examined and the starboard side inboard reduction gear pinion and wheel were found slightly pitted together with minor cuttings found in the lubricating oil filter. The manufacturer's agent examined the reduction gear and reported the condition to be satisfactory and is noted for 25) record purposes only.
- 25) .The piping and pumping system arrangements were examined to Rule requirements and found satisfactory.
- The Nos. 2 and 3 service air tanks were opened, examined internally, relief values tested and all found in order. 26)

REPORT NUMBER VA7729

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YANCOUVER, B.C., CANADA 5TH JULY 1979

#### "OCEAN RANGER"

#### SPECIAL SURVEY NO. 1 OF MACHINERY

- 27) The Nos. 1, 2, 3, starting air tanks were exemined internally and found satisfactory. Relief valves tested and found in order.
- 28) The port and starboard steering engines were examined to Rule requirements and found satisfactory.
- 29) The control air compressor was operationally tested and found satisfactory.
- The control air receiver was opened, examined internally and found satisfactory.
- 31) The auxiliary diesel generator engines were examined together with the log books and maintenance records, engines operationally tested under load, safety devices tested, and all found satisfactory. In view of the low operational hours of these machines, <u>further examination was waived</u>.

#### SPECIAL SURVEY NO. 1 OF ELECTRICAL APPARATUS

- 32) The main AC generators and excitors were insulation resistance tested and found satisfactory. Generators operationally tested under load and found satisfactory, insulation resistance records are on file.
- 33) The auxiliary generators and emergency generator were examined under operational conditions, together with the maintenance records, engines tested under load, safety devices tested and all found satisfactory.
- 34) The main and auxiliary electrical cables and main switchboard were examined to Rule requirements, insulation resistance measurements recorded and all found satisfactory.
- 35) IT IS RECOMMENDED that foregoing items numbered 10 34 inclusive be credited to the Special Survey No.1 of Hull, Hackinery and Electrical Apparatus and that the Special Survey No.1 of Hull, Hackinery and Electrical Apparatus be considered complete.

### ARMUAL SURVEY - HULL AND MACHINERY ANNUAL LOADLINE INSPECTION

- All accessible, of the steering arrangements including the steering mechinery, quadrants, tillers blocks, rods, telemotor or other control transmission gear, were examined and found satisfactory.
- 37) Stude valves, doors in watertight buildheeds and closing appliances in enclosed superstructure buildheeds and for air and sounding pipes including pressure vacuum valves and flame screens were examined and found satisfactory.

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VANCOUVER, B.C., CANADA 5TH JULY 1979

#### "OCEAN RANGER"

#### ANNUAL SURVEY-HULL AND MACHINERY ANNUAL LOADLINE INSPECTION

- 38) Coamings and closing arrangements of ventilators to spaces below the freeboard deck and into enclosed supertructures, hatchway coemings, hatch covers and all their supports were examined and found satisfactory.
- 39) All accessible parts of the vessel liable to rapid deterioration were examined and found satisfactory.
- 40) Exposed machinery casings, guard rails and all other means of protection provided for openings and for access to crew's quarters were examined and found satisfactory.
- 41) Guard rails for unprotected floor and deck areas were examined and found satisfactory.
- 42) Connections of vertical columns to upper and lower hulls were examined as far as possible and found satisfactory.
- 43) Diagonal girders, trusses, intersection stiffeners and areas in the hull structure in way of structural discontinuities and high stress concentration were examined as far as possible and found satisfactory.
- 44) A general inspection was made of the engine, steering machinery, windless and fire extinguishing apparatus required for classification and all found in satisfactory condition.
- 45) No alterations have been made to the vessel which would affect the loadline assignment.
- 46) The required stability data was verified as being onboard the vessel.
- The Annual Load Line Inspection was carried out at this time, Loadline Certificate was endorsed and a Provisional Loadline Certificate VA7730-X dated 5th July 1979 was issued for a period of five months, expiring 5th December 1979, pending issuance of final certificate.

  For further perticulars, see Vancouver Report VA7730 dated 5th July 1979.

**REPORT NUMBER VA7729** 

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VANCOUVER, B.C., CANADA 5TH JULY 1979

#### "OCEAN RANGER"

#### WINCH DRUM MODIFICATIONS

48) Modifications to the Nos. I through 12 mooring winches was initiated due to difficulties during operation inthat two drive gears were broken and the flange of one drum separated. The modifications were carried out in accordance with the owner's plans and specifications. Complete new winch drum units were installed and in view of the change in gear tooth profiles, the corresponding pinions on the drive shafts were renewed at this time. Additional intermediate bearings were fitted at the centre of the drive shaft to reduce deflection.

The drum assemblies including gears and pinions, together with other components were designed for heavy duty and in accordance with the following specifications:

- a) 624,000 pounds line pull on third layer at stall or equivalent torque at any layer.
- b) Occassional tensioning line pull of up to 95% of stall tension at slow speed up to seventh layer.
- c) 300,000 pounds constant line pull from the first to the thirteenth layer, at a line speed of 10 to 60 feet/minute.
- d) Paul holding the breaking strength of  $3\frac{1}{2}$ " nominal dia. Wire rope (1,248,000 pounds) up to and inclusive of the seventh layer.
- e) Band brake holding 625,000 pounds on the 7th layer.
- 49) Upon completion of the installation of the new winch drums and drive mechanism, the following winches were subjected to a brake load test and considered as being representative of the existing condition of the modified winches. The winches were tested under these loading conditions and the following results recorded:

Winches # AWI : 200,000 lbs. # AW6 : 220,000 lbs. # AW7 : 340,000 lbs. # AW12 : 100,000 lbs.

50) The winch drum modifications were examined on completion and as far as could be determined, all found satisfactory. REPORT NUMBER VA7729

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YANCOUVER, B.C., CANADA 5TH JULY 1979

#### "OCEAN RANGER"

SI	#	u.	ŧ٧	•

Underweter inspection in Lieu of Drydocking : completed July 1979.

Special Survey No. 1 of Hull : completed July 1979.

Special Survey No. 1 of Machinery : completed July 1979.

Special Survey No. 1 of Electrical Apparatus : completed July 1979.

Annual Survey - Hull and Machinery : completed July 1979.

Annual Loadline Inspection : completed July 1979.

Provisional Loadline Certificate Issued 5 July 1979, expiring 5 December 1979.

Winch Drum Modifications : completed July 1979.

It is recommended that this vessel be retained as classed with this Bureau.

C.Swift, Surveyor



### American Bureau of Shipping

#### REPORT OF ANNUAL LOAD LINE INSPECTION

REPORT NO.	NAM E	0F SHIP	DATE
VA7730	"OCEAN RANGER"		5th July 1979
EROSS TONNACE	OFFICIAL NUMBER PERT OF I		ISTRY PORT OF ISSUE
14,914	3 E N 8 Panama, R.		vancetter. B.C.
Odece			arnley Orill. & Expl.
ITEM EXAMINED	CONDITION		REMARKS
<ol> <li>HATCHWAYS &amp; COVERS Commings, stiffeners, stays, beams, fore and afters, carriers, covers, tarpaulins, closts, battens, wedges, lashings, gaskets and dogs</li> </ol>	N/A		
MACHINERY CASINGS     Fiddley openings, casings, doors, sills, skylights	N/A		
3. FLUSH SCUTTLES Attachments	n/A		
4. COMPANIONWAYS Doors, sills, fastenings	Satisfactory		
S. VENTILATORS Coamings, supports, deck coamections, closing arrangements	Satisfactory		
6. AIR PIPES Closing arrangements	Satisfactory		
7. GANGWAY, CARGO AND OTHER PORTS IN SHIP'S SIDES Closing arrangements	N/A		• .
8. SCUPPERS AND SANITARY DISCHARGES Valves	Satisfactory		
9. SIDE SCUTTLES Deadcovers	Satisfactory		
10. GUARD RAILS OR BULWARKS	Satisfactory		

Form LL 90 Rev. 3-75

Satisfactory  12. PROTECTION AND ACCESS TO CAEVS QUARTESS GRAYS, Lisilizes  13. STREST NUTURES  14. TIMBER TANKER AND 15. LOAD LINE MARKS  15. LOAD LINE MARKS  16. LOADING MANUAL  16. LOADING MINUAL  17. STABILITY DATA  18. Satisfactory  19. I have surveyed the above mentioned ship and am satisfied:—  (1) that the fittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the crew's quarters have been maintained in an effective condition; and  (iii) that no alterations have been made to the bull or superstructures which would affect the calculation determining the position of the load lines.  ANNUAL:—  1 have endorsed the Load Line Certificate No.  6130,895  18. Satisfactory  Place  EXTENSION:—  1 have extended the Load Line Certificate No.  18. Satisfactory  Place  Provisional Load Line Certificate No.  19. Signature  Provisional Load Line Certificate No.  10. VA7730-X dated 5 July 1979, pending is summer of rings certificate  19. Surveys, American Bureau of Soloping  This Conficure is granted subject to the condition has been and summer of rings certificate  19. Surveys, American Bureau of Soloping  This Conficure is granted subject to the condition has been and summer of rings certificate  19. Surveys, American Bureau of Soloping  This Conficure is granted subject to the condition has been only all the Cheen the condition of the load Line Certificate No.  19. Surveys, American Bureau of Soloping  19. Surveys of the condition of the Bureau of the Bureau of sory of in Conculture nor of indigence, default or nor plaguest, default or nor pl			
Sestiers, here  12. PROFICETION AND ACCESS TO CREETS QUARTEES Geograps, Lidelines 13. SUPERSTRUCTURES Consider spillaces and fasterials 14. STREAM TOTAL 15. STREAM TOTAL 17. STABILITY DATA 15. SELISFACTORY 16. LOADING MANUAL 16. LOADING MANUAL 17. STABILITY DATA 18. Setisfactory 19. I have surveyed the above-mentioned ship and am satisfied:—  (1) that the fittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the crew's quarters have been maintained in an effective condition; and  (ii) that no alterations have been made to the hull or superstructures which would affect the calculation determining the position of the load lines.  ANNUAL:— 1 have endorsed the Load Line Certificate No. 6130,895  C. Swift Signature  EXTENSION:— 1 have extended the Load Line Certificate No. 9 Language Place  EXTENSION:— 1 have extended the Load Line Certificate No. 9 Language Place  Place  Place  Place  C. Swift Suparater  Place  Place  This Certificate is greated asheed to the condition had it is valued asheed to the signature of final certificate  This certificate is greated asheed to the condition had it is a half engaged for another the barries are any of in Cofficent No.  Local April 16. Final Certificate  This certificate is greated asheed to the condition had it is a value asheed to the signature of final certificate  Local April 16. Has this survey been carried out at the same times of it in the value of signature of the condition in the barries with a value of the third with the signature of the condition with the survey of the condition of the same times of the value of the condition of the condition of the same times of the value of the v	ITEM EXAMINED	CONDITION	REMARKS
CALTYPE LIGHTS  SPECIAL TYPE  A TIMER TANKER AND  SPECIAL TYPE  SOPROMENTY Fittings  A LOADING MANUAL  (i) that the fittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the crev's quarters have been maintained in an effective condition; and  (ii) that no alterations have been made to the bull or superstructures which would affect the calculation determining the position of the load lines.  ANNUAL:—  I have endorsed the Load Line Certificate No.  61-39,895  ss follows:  C. Swift.  Separature  Yancouver, B. C., Canada  5 July 1979  Date  EXTENSION:—  I have extended the Load Line Certificate No.  Place  EXTENSION:—  I have extended the Load Line Certificate No.  Separature  Provisional Load Line Certificate No.  Load Suparation of final certificate  C. Swift.  Suparation of Englishers is order on one condition that is independent of the breeze it to say if in a fine order of incommentation with a condition of the breeze or to say of in a Consideration of the Date of the condition of the breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration of the Breeze or to say of in a Consideration o	11. FREEING PORTS Shutters, bare	N/A	
George applicaces and fastralings  A TIMELE TAYER AND September 147 Strings  A LOAD LINE MARXS  Satisfactory  A LOADING MANUAL LOADING INSTRUMENT  To STABILITY DATA  Satisfactory  I have surveyed the above-mentioned ship and am satisfied:  (1) that the fittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the creve's quarters have been maintained in an effective condition; and  (ii) that no alterations have been made to the hull or superstructures which would affect the calculation determining the position of the load lines.  ANNUAL:  I have endorsed the Load Line Certificate No.  G. Swift.  September  EXTENSION:  I have extended the Load Line Certificate No.  Place  EXTENSION:  Figure  Frow September  Provisional Load Line Certificate No.  Place  September  Provisional Load Line Certificate No.  Due  The Configure is greated above to the condition that it is underrosed and appear that extintion the breast or low years of in order to the publication of the lower or the any of in Conditions or or ord in Offices, the provise or its Secretary in early some in any somy in facced or sheet publication of the lowers or the any of its order or the publication of the lowers or the any of its order or the publication of the lowers or the any of its order or the angelence.  This survey was requested by:  Owner's rep.		Satisfactory	
Supplementary Sittage  3. LOAD LINE MARKS  Satisfactory  (a. LOADING MANUAL LOADING INSTRUMENT  7. STABILITY DATA  Satisfactory  I have surveyed the above-mentioned ship and am satisfied:—  (1) that the Sittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the crew's available have been maintained in an effective condition; and  (ii) that no alterations have been made to the hull or superstructures which would affect the calculation determining the position of the load lines.  ANNUAL:— I have endorsed the Load Line Certificate No.  (c. Swift Signature  EXTENSION:— I have extended the Load Line Certificate No.  (d. Swift Signature  Place  Place  Place  Place  C. Swift, Surveyor, Apartics is granted abject to the condition that it is undergrant whether in the breast enter my of its Committee me ery of in Officers, surveyor, Apartic or Englayers as under any communication whether in the hir response to the particular in the breast are my of its Committee me ery of in Officers, surveyor, Apartic or Englayers as under any communication whether in the half responsible for each insurate by this Brokes or its Sorveyor or in any survey in least or other publication of the breast or for any of its Committee me ery of in Officers, surveyor, Apartic or Englayers as under any communication of the breast or for any of its Committee me ery of in Officers, surveyor, aparts or Englayers as under any communication of the breast or for any of its Committee me ery of in Officers, surveyor, aparts or Englayers as under any communication of the breast or for any of its Committee me ery of in Officers, surveyor, aparts or Englayers as under any communication of the breast or for any of its Committee me ery of in Officers, surveyor, aparts or Englayers as under any communication of the breast or for any of its Committee me ery of in Officers, surveyor was requested by:  Owner's rep.	13. END BULKHEADS OF SUPERSTRUCTURES Closing appliances and fastenings	N/A	
Satisfactory  MA  LOADING MANUAL  LOADING INSTRUMENT  7. STABILITY DATA  Satisfactory  I have surveyed the above-mentioned ship and am satisfied:—  (1) that the fittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the crew's quarters have been maintained in an effective condition; and  (ii) that no siterations have been made to the hull or superstructures which would affect the calculation determining the position of the load lines.  ANNUAL:—  I have endorsed the Load Line Certificate No.  61-30,895.  Signature  EXTENSION:—  I have extended the Load Line Certificate No.  Signature  EXTENSION:—  I have extended the Load Line Certificate No.  Until:  Signature  Phase  Phase  Phase  Phase  Phase  Date  PROVISIONAL LOAD LINE CERTIFICATE ISSUED:—valid until: 5th December. 1979.  No. VA7730-X dated 5 July 1979, pending Insurance of final certificate  C. Swift.  Surveyor. American Bureau of Shipping  This Certificate is granted adviced to the condition that it is underpresed and agreed then mainly the bureau energy of its Connitions more any of its Officers, haveyore, Agents or Englegees us under any critematures where the bureau or to any or in connitions more any of its Officers, haveyore, Agents or Englegees us under any critematures where the bureau or to any of its officers is one of the publication of the bureau or to any of its officers is one of the publication of the bureau or to any of its officers is one of the publication of the bureau or to any of its officers is one of the publication of the bureau or to any of its officers is one of the publication of the bureau or to any of its officers is one of the publication of the bureau or to any of its officers is one of the publication of the bureau or to any of its officers is one of the publication of the bureau or to any of its officers.  The confidence is granted adviced to the condition to the publication of the bureau or to any of its officers.  Surveyor. Agents are one of the publication o	4. TIMBER, TANKER AND SPECIAL TYPE Supplementary Strings	N/A	
I have surveyed the above-mentioned ship and am satisfied:—  (1) that the fittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the crew's quarters have been maintained in an effective condition; and  (ii) that no alterations have been made to the hull or superstructures which would affect the calculation determining the position of the load lines.  ANNUAL:—  I have endorsed the Load Line Certificate No	IS. LOAD LINE MARKS	Satisfactory	
I have surveyed the above-mentioned ship and am satisfied:  (1) that the fittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the crew's quarters have been maintained in an effective condition; and  (ii) that no alterations have been made to the hull or superstructures which would affect the calculation determining the position of the load lines.  ANNUAL:—  I have endorsed the Load Line Certificate No. 61-30,895 as follows:  C. Swift Vancouver, 8.C., Canada 5 July 1979  Bigasines Place Date  EXTENSION:—  I have extended the Load Line Certificate No. until:  Squarer Place Date  Provisional Load Line Certificate No. until:  Squarer Place Date  This Certificate Surveyar, American Bursau of Shipping  This Certificate is granted adviced to the condition that is a undestrood and spreed that notifier the bursace are say of its Committees not carried out at the same bursay or in they same in the survey and its based enspectation in the same and addition to the protection of the based carried out at the same time as an Annual Survey? Yes. Report No. YA7729.  This survey was requested by: Owner's rep.	ie Loading Manual	N/A	-
I have surveyed the above-mentioned ship and am satisfied:  (1) that the fittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the crew's quarters have been maintained in an effective condition; and  (ii) that no alterations have been made to the hull or superstructures which would affect the calculation determining the position of the load lines.  ANNUAL:—  I have endorsed the Load Line Certificate No	LOADING INSTRUMENT	•••	
(1) that the fittings and appliances for the protection of openings, the guard rails, the freeing ports, and the means of access to the crew's quarters have been maintained in an effective condition; and  (ii) that no alterations have been made to the hull or superstructures which would affect the calculation determining the position of the load lines.  ANNUAL:—  I have endorsed the Load Line Certificate No	7. STABILITY DATA	Satisfactory	
PROVISIONAL LOAD LINE CERTIFICATE ISSUED:—valid until: 5th December 1979  No. VA7730-X dated 5 July 1979, pending insuance of final certificate  C. Swift, Surveyor, American Bureau of Shipping  This Candicers is granted subject to the condition that it is understood and agreed then neither the Bureau or surveyors are any of its Committees ner any of its	C.Swift	Yancouver . B. C C.	anada 5 July 1979 Date
This Confidence is greated subject to the condition that is in independent and approach that number the Busses are any of its Committee new committees that number the Busses are any of its Committee new committees when the following its any independent of the Busses are any of its Committee new committees and the Busses are any of its or report or constants intend by this pursue or in Surveyor or in any complication of the Busses of the copy of its or their around of independent, default or negligence.  Its vessel classed ABS or Unclassed? ABS	Resture	Place	Date
burseys: Agents or Employees a under one concensus whether in he half responsible for any inaccretory in any report or common there have no burses or in her have even in heart of other philescent or the hard or for any in the other evens of order path or the event of other philescent or the property of the other evens of order path of the same time as an Annual Survey?			Swift, unreyor, American Bureau of Shipping
inpenses time as an Annual Survey? Y. a.s Report No YA 7729.  Otal This survey was requested by: OWNET'S Tep	This Conflicete is granted subject Surveyers, Agents or Employees s Bureau or its Surveyers or in an	s under any circumstances whatever to be held responsible to r entry in Record or other publication of the Bureau or for a	ny of its or their errors of judgment, default or negligence.
Printed in U.S.A.	For a Expenses Fotal	time as an Annual Survey? Yes Report No.	VA7729
		Printed in U.S.A.	

#### PROVISIONAL LOAD LINE CERTIFICATE



VA7730-X Certificate No.

Data 5 July 1979
has the Load Line markings, assigned under
"OCEAN RANGER" ID #7601702 Reial No. 3ENB , and which have been
, are as follows:
Deck 16,000 MM
ring
ring
ring
rlag
ring
ring
seboards are measured in 480 MM
C. Swift, Surveyor.

97-093 0219

# American Bureau of Shipping

#### LA REPUBLICA DE PANAMA 45 BROAD STREET, NEW YORK, N. Y. 10004

### INFORME DE INSPECCION ANUAL DE LINEA DE CARGA

INFORME NO. VA7730-X-1	PUERTO DE Vancouver, B.C., Canada
	FECHA 5th July 1979
LA PRESENTE ES PARA CERTIFICAR qu	ue el infrascrito, Perito de esta Oficina atendió a
ruego de Odeco International Corp	. & K/S Fearnley Drill. & Expl.
	Número Oficial 3 E N B
de Panama, R.P.	•
eLdia de	para el fin de inspeccionar
(a) la protección de aberturas, (b) pasamanos, (c)	portas de desahogo, (d) medios de acceso al
alojamiento de la tripulación, y encontró que se ha	abían mantenido en condición eficiente; también
que no se habían hecho modificaciones en el caso	o ni en las superstructuras que pudiesen afectar
los cálculos de la posición de las líneas de carga.	_
A (Anual) - Certificado de Franco-bordo no	30,895 endosado 2 5 July 1979
Provisional  B (Renovación) - Certificado de Franco-bordo no	VA7730-X Issued 5 July 1979
basta al 5 December 1979.	
hasta al. 5 December 1979.	
MCOUVER	B. C.SWIFE, INSPECTOR

LL 17P-B 11-66

"INTERNAT"ONAL LOAD LINE CERT" "ICA" L (1966) T



## UNITED STATES OF AMERICA, Commandant, U. S. Coast Guard,

**57 ♣ American Bureau** of Shipping

Name of Sta	Official comber or Distinctive Leasure	Port of Regiony	Longth (L) as defined in Article 2 (8) L o., 65 CFR 62.13-15
DESAN MARKE	615,641	NEW ORLEAMS	137.465 m

N/A N/A



30 OCTOBER 1981

n that he is duly authorized by the said Governer

# American Bureau of Shipping REPORT OF ANNUAL LOAD LINE INSPECTION "OCEAN RANGER" 8 April 1980 New Orleans, LA Philadelphia. toesn Drilling and Exploration Company CONDITION REMARKS Satisfactory Satisfactory A. FLUME SCUTTLES Satisfactory Satisfactory Satisfactory Satisfactory Satisfactory

Satisfactory

, alm expense	CONDITION	REMARKS
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TANKE AND	Satisfactory	
Lang MARCH	Satisfactory	·
NE LOADING MARKAL	Satisfactory	
LOADING BUTTLULCOTT	•••••	-
R. SEMBLITY DATA	Letter On Board	
EXTENSION:-	Line Certificate No	
	Line Certificate No	until:
	Plus	Dote
MOVEMOKAT TOYD TIN	E CERTIFICATE ISSUED:	8 September 1980
"Pending Insuer of this Bureau	nce of Pull Term Certificate	by the New York Office
• • • • • • • • • • • • • • • • • • •	•	DA MCNOWN
	Ser	D. A. HC ALLISTER veyor, American Buresu of Shipping
The Combines is granted exhibit to a ferrogenic Agency or Employees is on these or its European of its one of	he condition that It is understood and agreed that mather the dar any electroscope whetever to be held responsible for day in Resard or other publication of the burete or for any	a thrives are any of its Cammilton nor any of its Offices, any inconverge in any report or conflicts inseed by this of its or flute errors of judgment, default or negligence.
	e vessel classed ABS or Unclassed?ABS	Has this marry been carried out at the serse PAN720

	ANNUAL SURVEYS
-	CERTIFY that at an annual survey required by Article 14(1)(c) of the Convention, this ship was for a relevant provisions of the Convention.
, The	Date
<del></del>	Surveyor to the American Bureau of Shipping
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Fit v. mar	Date
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	Surveyor to the American Bureau of Shipping
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	Surveyor to the American Bureau of Shipping
12.	(32,336)
<i>5</i> 2∙	(1.2.2.1)
**************************************	EXTENSION OF LOAD LINE CERTIFICATE
The section	EXTENSION OF LOAD LINE CERTIFICATE
%: The previates h Article 19(2)	s of the Convention being fully complied with by this ship, the validity of this Certificate is in accordan
%: The prevision h Article 19(2)	EXTENSION OF LOAD LINE CERTIFICATE  s of the Convention being fully complied with by this ship, the validity of this Certificate is, in accordance of the Convention, extended until
The provision Article 19(2)	s of the Convention being fully complied with by this ship, the validity of this Certificate is in accordan
The provision Article 19(2)	s of the Convention being fully complied with by this ship, the validity of this Certificate is, in accordar of the Convention, extended until  Date  Supreme to the American Burney of Shipping
The provision Acticle 19(3)	s of the Convention being fully complied with by this ship, the validity of this Certificate is, in accordance of the Convention, extended until
The provision h Article 19(2)	s of the Convention being fully complied with by this ship, the validity of this Certificate is, in accordance of the Convention, extended until
The provision h Article 19(3)	n of the Convention being fully complied with by this ship, the validity of this Certificate is, in accordance of the Convention, extended until  Date  Surveyor to the American Bureau of Shipping
The provision h Article 19(3)	of the Convention being fully complied with by this ship, the validity of this Certificate is, in accorda of the Convention, extended until  Date  (Signature)  Surveyor to the American Bureau of Shipping
The previous Article 19(2) Place	Date  Surveyor to the American Bureau of Shipping
The previous Article 19(2) Place	s of the Convention being fully complied with by this ship, the validity of this Certificate is, in accordance of the Convention, extended until  Date  (Signature)  Surveyor to the American Bureau of Shipping  (Signature)  Lagrand from a part signature on a circum pre indeed supercy, deeper leading shall be permitted corresponding to the weight by the properties of convention and the tree.  It is been been a part signature of past density on poster of convention and the tree.  It is been poster of past density the appropriate lead the set.  It is been poster of past density the properties lead the set of the past of the convention of the past of
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The previous Article 19(2) Place	Date  Surveyor to the American Bureau of Shipping  Surveyor to the
The provision is Article 19(2)  Place	Date  Date  Surveyor to the American Bureau of Shipping  Surveyor
Place	n of the Convention being fully complied with by this ship, the validity of this Certificate is, in accordant of the Convention, extended until  Date  Date  Surveyor to the American Bureau of Shipping  (Signature)  Surveyor to the American Bureau of Shipping  Surveyor to the American Bureau of Shipping  Surveyor to the American Bureau of the fresh water allows the surveyor to the Shipping Shipping Shipping Shipping  Surveyor to the American Bureau of the fresh water allows the Shipping Shipp
Place	n of the Convention being fully complied with by this ship, the validity of this Certificate is, in accordance of the Convention, extended until  Date  Date  Surveyor to the American Bureau of Shipping  (Signature)  Surveyor to the American Bureau of Shipping  By the New year of path density the appropriate lead filter made to the extent density.  The by the plays to the transit the made to the appropriate lead inference between 1205 and the extent density.  The survey of the transit under verying conductor of service and to sevel unacceptable stresses in the vessel's structure, the survey of the transit under verying conductor of service and to sevel unacceptable stresses in the vessel's structure, the survey of the transit under verying conductor of service and 613-55. The parison during the North Atlantic Ore Manual pastes of the westel on the second in the Load Lies Englishment of 60 CPR 623-55. The parison during which the other vessel than the pastes of the westel on the second by the Commenced of the Conductor of 60 CPR 623-55. The parison during which the other vessel than a parison of 80 CPR 623-55. The parison during which the other vessel than the pastes of the contilicate, the surveys have not been carried out which these mentals either very of each saminarrary date of the certificate, things to be a considered to these that the ship has been surveyed as indicated in (a).
Place	Date  Date  Surveyor to the American Bureau of Shipping  Surveyor to the Surveyor to the American Shipping  Surveyor to the American Bureau of Shipping  Surveyor to the Surveyor to the Surveyor to S

#### CARGO SHIP SECTY CONSTRUCTION / ERTIFICATE



#### . UNITED STATES OF AMERICA

#### Issued under the provisions of the

#### ITERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1960

Manay of Majo	Balanta Radio or laters	tun di laglary	4	Date on which head was laid bee HOTE below)
"DOBAL MAISER"	615,6AF	HOM OOLEANS, LA.	14,914	1974

#### HE AMERICAN BUREAU OF SHIPPING HEREBY CERTIFIES:

But the above contract july has been duly entered in constrain with the problem of Experimental of the Constrain referred desire, and that the construct that the problem of the bulk residency, and explosive, as defined by the above Experimen, one is of respect descripted that the step complete with the applicable regularizers of Chapter II patter than that relating to the collegability experiment and fire that above.

The conditions is broad under the condition of the Gramman of the bland Street of America.

See all results in terms until 1974 Years 250 APRIL 80

American Bureau of Shipping

MODELLAND SECRETARY DE CO. Calor

triffig to will be sufficiently by implests the paper in which the best was laid

· SEC 148 Sec. 1414



#### CARGO SHIP SAFETY RADIOTÈLEGRAPHY CERTIFICATE

Issued under the provisions of the

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

#### CANADA

#### CERTIFICAT DE SECURITE RADIOTÉLÉGRAPHIQUE POUR NAVIRE DE CHARGE

Délivré en vertu des dispositions de la

CONVENTION INTERNATIONALE DE 1974 POUR LA SAUVEGARDE DE LA VIE HUMAINE EN MER

Name	Districtive Number	Port of	Gross	Date on which issel was laid (see NOTE below) Date à laquelle la quille a cid posée (note la NOTE ci-apole)
of Ship	of Letters	Registry	Tonnage	
Nom	Muméro ou lettres	Purt	Tonnage	
du navar	distinctifs du nevire	d'immetriculation	brus	
OO.W RANGE	KRTB	New Orleans L.A., U.S.A.	14818	1974

e Government of Canada certifies:

That the above-mentioned ship complies with the wisions of the Regulations annexed to the Conntion referred to above as regards radiotelegraphy d rader:

Le Gouvernement du Canada certifie:

L. Que le navire susvisé satisfait aux dispositions des Règles annexées à la Convention précitée en ce qui concerne la radiotélégraphie et le radar:

Vessel is exempted from Radiotelegraph Requirements as per attached Appendix "A" dated May 5, 1981.	Requirements of Regulations Prescriptions des Règles	Actual Provinca Dispositions prins à bord
lours of listening by operator - Heures d'écoute par opérateur	8 Hrs. a day	8 Hrs. a day
Number of operators - Number d'opérateurs	One	One
Thether auto-alarm fitted Y-a-r-d un auto-alarme?	Required	Fitted
hether mam installation fitted Y-e-t-d une matallation principale?	Required	Fitted
vhether reserve installation fitted. Y-a-t-d une installation de réserve?	Required	Fitted
hether man and reserve transmitters electrically separated or combined interious principal et l'émetteur de réserve sont de électriquement pures ou sont de compages ?	Separated	Separated
hether direction-finder fitted Y-s-t-il un radioguniomètre?	Required	Fitted
-hetlier radio equipment for homing on the radiotalephone distress (requency itsel).  4-1-4 un matériel de naturalliement sur la fréquence radiotéléphonique de préss.	Required	Fitted
hether rudar fitted Y-e-r-il une installation rudar?	- Required -	Fitted

That the functioning of the radiotelegraphy inallations for motor lifeboats and/or the portable idio apparatus for survival craft, if provided, complies ith the provisions of the said Regulations.

II. Que les installations radiotalégraphiques pour em-barcations de sauvetage à moteur et/ou, le cas échéant, l'appareil de radioélectrique portail pour embarca-tions et radeaux de sauvetage fonctionnent conformé-ment aux dispositions des Règles.

This certificate is issued under the authority of the overnment of Canada. It will remain in force until	Le présent certificat est délivré au nom du Gou vernement du Canada. Il est valable Jusqu'au
15th. of April 1982	15th of April 1982 '
sued at St., John's, NewCoundland	Delivié à St. John's, Newfoundland
e. 16. day of Архій	te 16th jour de April 19, \$

he undersigned declares that he is duly authorized y the said Government to issue this certificate.

Le soussigné déclare qu'il est dûment autorisé par ledit Gouvernement à délivrer ce certificat.

Inspecteur radio

All It will be sufficient to indicate the year in which the heef operand of when the ship was at a unider edge of continuention except for 1932, 1963, and the year of the coming more force of the finemational Concents on for the Salety of Literal Sea, 1974, in which carried nearest date though the parent figure. Comprisit figures have been in extent.

NOTE III suffit d'industre l'année né la quille a éré poude et construction des navet se touveut à un stade équeraleus, s années 1912 et 1955 et l'année d'entère en signance de l' l'établissaire de 1919 peur la survegande de la vio homades et quelle au si rout intérept de dans en act.

this Certificate has been issued

at the request of the tweenment of the United States of America under provision of Regulation 13, Chap. 1, of the International Convention for Safety of Life at Sea 1974.

1

C-IE-LA NA HX 3UCHG	C-46	M.	HX3GCHG
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Form CHG-7

CERTIFICATE OF ANNUAL PROPORDED EXAMINATION OF CLAR WHICH DOES NOT REQUIRE TO BE PURIODICALLY BEAT TREATED, AND FOR ANNUAL INSPECTION OF CARGO OF SE

This certificate when properly executed by a competent person is accepted by the Government of the United States of America as bring in accordance with the requirements of 46 CFR Part 91 and 29 CFR 1918.12(a).

Name of ship on which cargo great is fitted "CCEAN RAIGER"

(1) Distinguishing number, marks or lession	(2) Description of goar*	(3) Number & Dute of Certificate of Test and Examination	(4) Condition found and repairs effected
Portside upper deck	One (1) National OSh35 pedestal deck crane, h3L.Tons	VA516CHG 16 May 79	Satisfictory
Stbd.side upper deck	ONE (1) Untional OS435 poicetal deck crane. We 3L Tons	Westfatte 1: May 70	Ent Estactory
Upper deck port aft	One (1) Link telt ABS 233 post crane 37.272 Tons	WAS LONG 16 May 73	Sobistrotory

<sup>\*</sup> In regard to goer not required to be periodically best treated, the dimensions of the gear, the type of material of which it is maile, and the heat treatment received in manufacture about be stated.

5	Name and address	of association makin	e the examination:	American Bures	u of Shipping.

Port of Servey ST JOHN'S, MEMOCURIDIAND

			_			
6.	Position of structury in	essociation:	Surveyor to	American	Bureau	Shioning.

I certify that on the 16th day of JUE 19 1, the above cargo gear was thoroughly examined by a competent person and that no defects affecting its safe working condition were found other than those indicated and corrected as noted in Column 4. I cortify that on the 16th

(Des) \_\_\_\_\_\_16 June 1961

(Signature) HURRY LI

NOTE: Fif this is goes not required to be trusted and definition of thereagh on For the purpose of this continues a competent purson is defined as a Surveyor of a Classification Stated continuents against

#### INSTRUCTIONS

car not required to be heat treated, but required to be thoroughly examined by a competent person once at least in very twelve months:

Place-link chains.

Pitched chains.

Rings, hooks, shackles and swivels permanently attached to pitched chains, pulley blocks or weighing machines. Hooks and swivels having ball bearings or other case-hardened parts.

Bordeaux connections.

Gear constructed of steel.

OTE: "Thorough examination" means a visual examination, supplemented if necessary by other means such as a hammer test, carried out as carefully as conditions permit in order to arrive at a reliable conclusion so to the safety of the parts examined; if necessary for the purpose, parts of the new hines or gest must be dismanifed.

for additional requirements of the American Bureau of Shipping see "Requirements for the Certification of the fonstruction and Survey of Cargo Goar on Merchant Vessels".

INCOTE: This Contiliants oridonate compliance with one or more of the Sures, epidan, standards or other criticity of American Bureau, it committees in our or other enters and policy for the use of the Bureau, it committees, it is only or other enters and policy and it is a commentation only that the structure, items of motorial, opigement, mechanism or every other from covered by this Conflictes has most one or more of the State, quides, moderate or other entering of american bureau of Shapping The surfiely, appricability and interpretation of this Conflictes in queezed by the 2xis and detection of American bureau of Shapping the surfiely, appricability and interpretation of this Conflictes in any Sadder lasted is contemporated of this Conflictes shall be deemed to rations any decipier, builder, error, manufacturer, safer, separate Sabelate, or other entire of the Ton-Scale or of the Conflictes shall be deemed to rations any decipier, builder, error, manufacturer, safer, separate Sabelate, or other entire of other error.

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DEPARTMENT OF TRANSPORTATION U. S. COAST GUARD CG-3821 (Rev. 12-71)			PECTION REC			]*:		CONTROL SYMBOL MVI - 4031
INSTRUCTIONS: - The form of th	netion		6. Installation 7. Failure of 8. Failure of 9. Revocation 10. Lay-up or	on or tes f fire fig f an appr m or retu	hting or li oved Subc im of Cer	ifesavin; chapter ( tificate	g equip Q Item	ment
TO:	VIA FIRST		COPY TO (Zene	Cortilicate	4		PORT	1 1980
COMMANDANT (MVI)	DISTRICT CO	MANDER (m)	OFFICIAL NUME	EA   644	ILOF XEU		APE 2	ATE ATE
_OCEAN RANGER			615641		TTT SEA	81.	8 4	pril 1980
I. REINSPECTION  a. PERIODIC  b. MID PERIOD  c. OTHER (Indicate		4. CAS	PAIR (Describe BUALTY DAMAG ESTIGATED BY TERIORATION NUCTURAL FAIL HER (Indicate)	E .		4:   R 6.   R c:   S	EVOK E ETURN	ED TO VESSEL " DERED TO
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REMARKS (Key to (fee(s) shows) Describe repairs and renewals by plate, strake, frame, structural component, equipment component, etc.  4 Special hull survey conducted with diving and video tape equipment (underwater)								
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INSPECTION ZONE ROYIDENCE, RI		OFFICER IN	снала ч	ORIG	AISA	TIET		YERSE

DEPARTMENT OF TRANSPORTATION U, S. COAST GUARD CG-858 (Rev. 8-74)	CERTIFICATE OF II	NSPECTION AMENDMENT	
NAME OF VESSEL			OFFICIAL NUMBER
OCEAH PANGER			515571
CLASS	GROSS TONS	HOME PORT	
Column stabilized	i		*
Trilling voscel	14,213	Non: Orivans, I.A	
WHEN AND WHERE BUILT			
1026 111			
1976 - Rivos	TE OF INSPECTION EXPIRES	DATE AND PLACE CURRENT CERT	IFICATE OF INSPECTION
		ISSUED	
27 Decamber	981	27 700 1947 1979	Providence UT
	a issued to the vessel described abo		
			-
	-		
175 C C FT	DRYDOCKED: SPECIAL UNDER	WHATER CURVEY DUE ARRES	1072
AESSER	DRIBOCKED: SPECIAL UNDER	MAINE SURVEY DUE APRIL	1952
+			
	•		
	-		
			•
	-		
DATE OF ISSUE	INSPECTION ZONE	OFFICER IN CHARGE, MARINE INSP	ECTION
*			
29 April 1980	Providence, R.I.	R. A.SUTRERLAND, CAPT,	USCG
	INSTRUC	CTIONS	
1. This (manifest shall be	issued to authorize changes to		all be filed to the eff
the conditions or particul	ers entered on a current valid	<ol><li>One copy of this amendment al of the issuing Officer in Charg</li></ol>	e, Marine Inspection. In
Certificate of Inspection	(Form CO-841 or CO-3753) or to are entered on a current valid	of the issuing Officer in Charg addition one copy shall be dis- fellowing.	bibuted to each of the
amendment to such Certifi	cate of Inspection. When issued		pelaspection the issued
it shall become a part of t which it amends.	he Certificate of Inspection		apection
	duent shall be delivered to the	Chanasant (G-RVI)	IEA ZO
master or owner of the ve	ssel samed hereix and must be	The proper or agent of the	esset Kinggi terein.
of inspection, if the Cort	r sear the vessel's Certificate ificate of Inspection is not re-	1/2/1/1/1/1	124
contract to be posted. this	terendures must be best on board		[P4]
PREVIOUS EDITION MAY BE U	paction and shown on demand.		GPO 954-93

## Cargo Ship Safety Equipment Certificate



UNITED STATES OF AMERICA

ISSUED UNDER THE PROVISIONS OF THE

### International Convention for the Safety of Life at Sea, 1960

HAME OF BUT	DESTRUCTIVE MANAGEM. OR LISTYBUS	POST OF REQUESTS	GROSS TOSHINGS	BATE ON VIRGI
OCTAN SANGER	WZG 7133 (Interim)	New Orleans, LA	14913	1976

#### THE GOVERNMENT OF THE UNITED STATES OF AMERICA CRATHESES:

- I. That the above-mentioned ship has been duly impacted in accordance with the provisions of the Convention referred to above.
  - incheses on effective capable of accommodation .. 50 ... persons:

    - ... 2. motor likhouts (included in the total likhouts shows above), including ....... motor likhouts fitted with radio-tringraph ineralisation and exercibilities and ...... motor likhouts fitted with smoothlight only:
  - ...... Infamilia, for which approved issunching devices are required, capable of accommodating : . . . . . . parsons; and
  - . 10 . Micrafia, for which approved hundring devices are not required, capable of accommodating 200 . . . . persons;
  - ...3.. Mebuoje;
- III. That the lifeboots and liferafts were equipped in accordance with the provisions of the Regulations encound to the Convention.
- IV. That the ship was provided with a line-throwing apparetus and portable radio apparetus for survival craft in accordance with the provisions of the Resolutions.
- -V. Ther the inspection showed that the skip compiled with the requirement of the mid Convention as regards for-enterpubling appliances, and fire control plans and was provided with navigation lights and shapes, plot holder, and means of making sound signals and discress eignals, in accordance with the provisions of the Regulations and the International Collision Regulations.
- VI. That in all other respects the ship complied with the requirements of the Regulations to far as these requirements apply thereto.

Tax Unreasons Declars that he is duly authorised by the said Government to issue this certificate.

which the last ray had been deaded by being the party in the last ray of the l

B. A. SUTSBELLIER, CAPT. 1905.



9671, 66 19469, 4948, 88-99-1 (gov. 3-97)

PREVIOUS RESTOR MAY BE USE

GPO 983-4



UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION UNITED STATES COAST GUARD

This Certificate Expires 27 DECLIBER

Certificate	of	Inspec	tion
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OCEAN RANGER			1	61564		CLASC Column stabiliz
	HET TOHS	LENETH	HOME POST			drilling vessel
14,913	12,097	398'	New Orleans			
YEAR BUILT 1976	Hiroshina, Japan	1			UR REBUILT	Steel (A)
	and Exploration Com	spany			ew Orleans, Loui	eiana 70161
Owner Ocean Drilling	and Emploration Com	aban)	P.O. BOX 61	780, H	ew Orleans, Loui	siana 70161
The inspection of the above named vessel having been completed at Providence, Rhode Tuland on the _ 27 day of _CROWNER						
1(C) Menter Chief Mete	Marter & Let Clear Co. L. Radio Officer	Print Able Some print Ordinary S		M As	mistant Engineer	Promos/Watertonders 3 Otlers
3(5) Hatele	)   o <sub>1</sub>	ereter(n)		O) ME		
	vessel may carry	other persons in th		. passen		ons in addition to the
(i) I's tensile store (ii) Permiferted Life the persons on board (c) Laster and one is operations. That the westel is no	out an itali un provid and also when in navig se to "old unidiated li vigated lo nours or les	cockers required. See led at all times to men ation to use sufficient common; all other office as in a 24 hour period.	printry literavir inflatable lifer ore ray ould spec the modine cre	n fer crony map mater and uniedarph	accomodate XXX of ti historial literasus app	u persons on board. Propriate for the was of
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completion of the above requirements and specifications, the suits can be all approval. Boyloy Suit's approval number is 140.071/2/0.

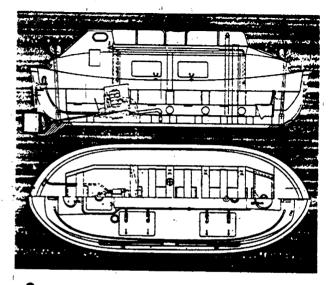


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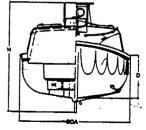
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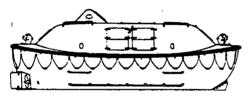
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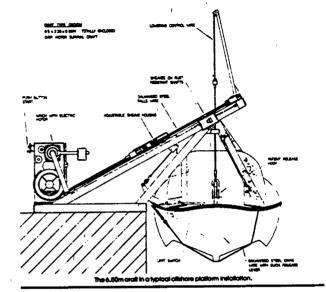
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# ADMINISTRATION OF CARGO PREFERENCE LAWS IN PURCHASE OF JAMAICAN BAUXITE

#### MONDAY, JUNE 7, 1982

House of Representatives,
Committee on Merchant Marine and Fisheries,
Washington, D.C.

The committee met, pursuant to call, at 1:30 p.m., in room 1334, Longworth House Office Building, Hon. Walter B. Jones (chairman of the committee) presiding.

Present: Representatives Jones and Sunia.

Staff present: Edmund B. Welch, Gerald Seifert, John Long, Barbara Cavas, Molly Dominick, Paris Suzanne Russell, Eugene W. Gleason, Stephen D. Little, and Beverly Rowen.

The CHAIRMAN. The committee will come to order, please.

The committee meets today to carry out its continuing responsibility to oversee the administration of our cargo preference laws, in this case the Cargo Preference Act of 1954, known as Public Law 83-664.

Our focus is the U.S. purchase, through the General Services Administration and the Commodity Credit Corporation, of 1.6 million

tons of Jamaican bauxite for the national defense stockpile.

The committee has been following the negotiations for this transaction since last December, when I became aware that GSA, which was responsible for negotiating the transportation of the bauxite to the United States, was contemplating only the use of foreign-flag vessels.

In response to my protests, I was assured that use of U.S. flag ships would be fully considered and that the requirements of the

Cargo Preference Act would be met.

The bauxite shipments are now underway and no U.S.-flag ships are being used. GSA found, and the Maritime Administration concurred, that no suitable U.S.-flag vessels were available. They are indications, however, that the vessel specifications required by GSA were written such that no U.S.-flag operator could meet them. If this is true, the Cargo Preference Act has been avoided, not obeyed. We meet to examine this and related questions.

Unfortunately, Federal agencies have a long history of trying to avoid or undercut the Cargo Preference Act, not because it is unclear—the statutory language is straightforward—but because it is

unpopular.

Perhaps the law should be modified or repealed, and if so, it is the duty of Congress to make the change. The Federal agencies, like anyone else, are free to express their view on the matter and

to lobby for that view.

They are emphatically not free, however, to disregard or disobey the law simply because they don't like it. Until Congress changes it, the Cargo Preference Act is the law of the land and must be obeyed by all.

At this point I would like to submit the remainder of my statement for the record. I think I made clear the position of this com-

mittee and our reaction to what has taken place.

There being no objection, so ordered. [The statement of Mr. Jones follows:]

### STATEMENT OF HON. WALTER B. JONES, CHAIRMAN, MERCHANT MARINE AND FISHERIES COMMITTEE

The committee meets today to carry out its continuing responsibility to oversee the administration of our cargo preference laws, in this case the Cargo Preference Act of 1954, known as Public Law 664. Our focus is the U.S. purchase, through the General Services Administration (G.S.A.) and the Commodity Credit Corporation (C.C.C.), of 1.6 million tons of Jamaican bauxite for the national defense stockpile.

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Having said that, let me summarize the events leading to this hearing. These events are set out in detail in the materials previously provided to the members and

events are set out in detail in the materials previously provided to the members and included in the members' folders today.

On November 24, 1981, President Reagan announced a plan for the United States to acquire 1.6 million tons of Jamaican bauxite for the national defense stockpile. G.S.A. is purchasing 0.8 million tons with cash and 0.4 million tons by exchanging excess stockpile commodities. These commodities will be sold by G.S.A. as Jamaica's agent and the proceeds credited to Jamaica. C.C.C. is acquiring another 0.4 million tons of bauxite by bartering about 9,000 tons of dairy products. The dairy products are being sold to Jamaica at about half of their cost to the United States.

In accompling transportation and storage for the hauxite, G.S.A. selected the Reyn-

In arranging transportation and storage for the bauxite, G.S.A. selected the Reynolds Metals company plant at Gregory, Texas as the storage site. Reynolds has its own private port at Gregory and specialized bauxite unloading equipment. G.S.A. twice solicitied U.S. flag participation in the carriage of the bauxite, once on December 28, 1981 and again on February 25, 1982. The first time the response period for bids was only 48 hours long. After my protests and those from MARAD that this responses period was too short, G.S.A. provided a two-week response period to the second solicitation. Both times several U.S.-flag operators submitted bids.

Each time G.S.A. solicited U.S.-flag vessels, however, it required all ships to be a certain size and have self-unloading equipment suitable for connection with the

unique Reynolds equipment. It appears that these requirements effectively pre-cluded U.S.-flag participation in the bauxite shipments. This hearing will examine that question and the events surround ing the bauxit transaction in an effort to de-

termine if the Cargo Preference Act has been avoided or disobeyed.

The CHAIRMAN. Our first witness this afternoon is Adm: Harold Shear, Maritime Administrator for the Department of Transportation.

You may proceed.

STATEMENT OF ADM. HAROLD SHEAR, ADMINISTRATOR, MARI-TIME ADMINISTRATION, DEPARTMENT OF TRANSPORTATION, ACCOMPANIED BY LEW PAINE

Admiral Shear. Thank you, Mr. Chairman.

With your permission I will proceed with a short prepared state-

Mr. Chairman, members of the committee, my name is Harold Shear. I am the Maritime Administrator in the Department of

Transportation.

It is a pleasure for me to appear before the Merchant Marine and Fisheries Committee at the commencement of your oversight hearings into the recent purchase of Jamaican bauxite to replenish the national defense stockpile.

On November 24, 1981 President Reagan announced that he had directed the Federal Emergency Management Agency to procure approximately 1.6 million tons of Jamaican-type metal grade baux-

ite for the national defense stockpile during fiscal year 1982.

The President's announcement specified that this acquisition program would be accomplished through a combination of direct cash purchase and exchange for excess materials from our stockpile by the General Services Administration, and the barter of agricultural commodities by the Department of Agriculture.

As you know, the FEMA is the Federal agency which plans and coordinates the stockpiling of strategic materials. GSA maintains the funds appropriated for stockpiling and is responsible for the

actual procurement of stockpile materials and site selection.

With respect to this barter transition, Mr. Chairman, about 400,000 of the 1.6 million tons of bauxite was paid for by about 9,200 tons of surplus Department of Agriculture dairy products.

As the entire shipment of dairy products has been booked for shipment on U.S.-flag vessels, I will limit my remarks to the Jamaican bauxite to be imported into the United States.

As the Jamaican bauxite was to be acquired by the United States for the national defense stockpile, Public Law 664 would apply. That act, set forth in section 901(b) of the Merchant Marine Act of 1936 requires that where the United States procures equipment, materials or commodities for its own account, then 50 percent of the gross tonnage of such cargoes shall be transported on privately owned U.S.-flag commercial vessels to the extent such vessels are available at fair and reasonable rates.

Section 901(b)(2) directs the Maritime Administration to insure that the administration of Public Law 664 by other agencies con-

forms with the statutory intent.

Following the President's announcement, the Maritime Administration met with the GSA to insure that there was a full awareness of the shipping requirements of the section 901(b) of the Merchant Marine Act, and that U.S.-flag merchant vessels were accorded an opportunity to transport this cargo.

About this time I personally intervened. In early January I wrote and also phoned Commissioner Roy Markon to impress upon him my concern, the interest of the chairman of this committee. Chairman Walter B. Jones, and the concern of the U.S.-flag merchant marine with respect to this cargo.

Commissioner Markon informed me at that time that the acquisition was still uncertain, but that he and the GSA understood the cargo preference requirements of the statute and would be pleased

to cooperate.

My staff again spoke with Commissioner Markon on February 8, and I met with him on February 10, 1982, when we learned that a decision had in fact been made to proceed with the acquisition. Approximately five U.S.-flag operators had indicated interest in transporting this bauxite, and I wanted to make sure that they had every opportunity to do so.

We urged GSA to select a storage site which would be accessible to conventional U.S.-flag bulk carriers. They informed us, after review, that Gregory, Tex., was the only site acceptable to them, based on lower costs at the site, the environmental problems involved in handling the very fine, powdery grade of bauxite ore involved and their preference for adding to an existing stockpile at that site. The selection of the site is a function within GSA's contracting authority and area of expertise.

Thereafter, on February 25, 1982, the GSA and the Department of Agriculture entered into agreements with the Government of Jamaica for the purchase of a total of 1.6 million tons of bauxite. The agreements contained provisions requiring Jamaica to transport the material from that country to the Reynolds Metals Co. installation at Gregory, Tex., as the GSA stockpile site between March 15.

1982 and September 30, 1982.

In accordance with the provisions of Public Law 664, these agreements provided that 50 percent of the material was to be transported in U.S.-flag merchant vessels to the extent such vessels were

available at fair and reasonable rates.

Based on responses to a request for offers of U.S.-flag vessels, GSA determined that the offers were not responsive to the solicitation. The bauxite is being transported by Reynolds foreign flag vessels.

Unless appropriate U.S.-flag vessels which can interface with the specialized discharging facility at Gregory, Tex., become available before the movement is completed in September, which is not considered likely, the total ocean transportation will in fact, be per-

formed by foreign flag vessels.

Reynolds, acting on behalf of the Government of Jamaica, solicited offers of U.S.-flag tonnage to transport the 50 percent of the bauxite mandated by Public Law 664. Two such offers were received. GSA determined that neither offer was responsive to the requirement that the vessels be able to properly interface with the specialized unloading facilities at Gregory, Tex. This incompatability effectively precluded the participation of U.S.-flag merchant vessels in the transportation of this bauxite.

GSA has assured MARAD that the requirements of Public Law 664 can normally be met under its regular operating procedures and that it will consult with MARAD in the early stages of planning for future stockpile acquisitions so that due provision can be made for compliance.

That concludes my prepared statement, Mr. Chairman, I will be

pleased to answer any questions that you may have.

The CHAIRMAN. I do have two or three short questions, I hope. Does the current statute apply to transportation of purchases by the United States for its strategic stockpile, in your opinion?

Admiral SHEAR. Yes.

The CHAIRMAN. More specifically, does the statute apply to this purchase of bauxite?

Admiral SHEAR. Yes, it does, as I indicated in my statement.

The CHAIRMAN. Are you aware of the barter by the Commodity Credit Corporation—CCC will send dairy products at a cost far below what this Government paid for them? In fact, CCC must go out on the open market to purchase this, as there is no inventory of this, and turn around and barter it to BATCO at a much lower price? Does the cargo preference laws apply to ocean transportation of these bartered dairy products?

Admiral Shear. We didn't find it necessary to address that since the total amount was in the process of being booked on U.S.-flag merchant vessels. I will be pleased to make an inquiry specifically

in this regard and provide it for the record.

The CHAIRMAN. Thank you. [The information follows:]

#### OCEAN TRANSPORTATION OF BARTERED DAIRY PRODUCTS

In response to the question as to whether the cargo preference laws apply to ocean transportation of the dairy products bartered by USDA in exchange for Jamaican bauxite, it is our understanding from USDA that the commodities involved in this barter transaction were priced at calculated world market prices for the purpose of the barter. If valued at world market prices, even though those might be lower than the prices at which the dairy products were acquired by USDA, there is no price concessions to the foreign government involved in the transaction, and thus the ocean transportation of the dairy products under this transaction would appear not to be covered by the cargo preference laws.

The CHAIRMAN. I don't mind saying—you can put it in the record—that there is so much that I can't understand about this whole transaction. My next question will indicate my suspicion about the whole transaction.

When the GSA first asked for an expression of interest of U.S.-flag ships on December 28, with replies due December 30, 2 days, is

this time period normal for an expression of interest?

Admiral Shear. I think in this particular case it was. I went to considerable effort to make sure the potential U.S. operators did in fact have the opportunity to respond.

The Chairman. I assume, then, in my next question—did you

protest this short time period? Apparently you did not.

Admiral Shear. I did not protest it. However, I did protest the lack of GSA response to U.S. carrier requests for additional details.

The CHAIRMAN. Going further, both times GSA sought bids and specified Gregory, Tex., as the receiving port it also specified that ships had to be compatible with the specialized discharge facilities at Gregory. Is that not true?

Admiral SHEAR. That is correct, sir.

The CHAIRMAN. Are there any U.S.-flag ships who can offload at the specialized Gregory facilities?

Admiral Shear. To my knowledge there are no such configured

U.S.-flag vessels at the present time.

The CHAIRMAN. Does Reynolds have a subsidiary with foreign-flag ships that would fit the Gregory facility?

Admiral SHEAR. Yes, they do.

The CHAIRMAN. Do you know of any ships, foreign or U.S.-flag, other than the Reynolds ships which can offload at Gregory?

Admiral Shear. I don't know of such vessels without certain

modifications.

The CHAIRMAN. Are there other ports which handle Jamaican bauxite without the specialized equipment found at Gregory?

Admiral SHEAR. Yes.

The CHAIRMAN. Is Corpus Christi able to handle bauxite?

Admiral SHEAR. Yes, it is.

The CHAIRMAN. Could U.S.-flag ships transport bauxite to Corpus Christi?

Admiral Shear. Yes, they would be capable of discharging there. The Chairman. How far is Corpus Christi from Gregory?

Admiral Shear. Approximately, as I understand it, 17 miles.

The CHAIRMAN. Do you have or is there any evidence of environmental problems affecting bauxite shipments through Corpus Christi?

Admiral SHEAR. Yes. As a matter of fact, GSA discussed the environmental problems, reviewed the environmental problems with

me, with regard to discharging at Corpus Christi.

The CHAIRMAN. We don't have any information on that, although we saw it at the time, so it is not involved in security or anything of that nature. The Chair would be very grateful to have it, their explanation of their position of why Corpus Christi could not be used.

Did the specification of Gregory, Tex., with its specifications as a receiving port, tend to rule out any U.S. transportation of this

bauxite?

Admiral Shear. At the time we started investigating, I personally did not know whether it ruled out U.S.-flag carriers or not. As we went forward with the solicitations, it became obvious that any U.S.-flag carriers would have to have certain modifications in order to match up to the discharge facilities at Gregory.

The CHAIRMAN. In other words, for emphasis I will repeat and see if I interpret your answer correctly, that the specialization or the specification by GSA absolutely completely eliminated any

American-flag vessels from participation.

Would you agree with that, sir?

Admiral Shear. As it developed, the two carriers which did in fact finally respond did not have the matching equipment on their vessels and apparently were not able to provide such equipment in a reasonable time frame.

The CHAIRMAN. You may have answered this, I don't know, but

did MARAD protest the specification of Gregory, Tex.?

Admiral SHEAR. We reviewed other potential sites. The actual selection of the site was the responsibility of the GSA.

The CHAIRMAN. Did you actually protest the exclusion of all ports except Gregory? Did you suggest maybe they consider Corpus Christi?

Admiral Shear. In our ongoing review we did suggest that they consider other ports. However, the final decision on the port for the particular type of bauxite ore involved was the responsibility of GSA.

The CHAIRMAN. Were the cargo preference laws circumvented in

here in your opinion?

Admiral Shear. I can't say they were circumvented. We tried to find American ships that could compete for this cargo. As it turned out, with the special configurations for the receiving port, they were not able to compete.

The CHAIRMAN. Did anyone from another executive branch position discuss with MarAd or pressure MarAd on the need to transport this on foreign flag ships or to waiver the cargo preference laws, to

your knowledge?

Admiral SHEAR. They did not.

The CHAIRMAN. Are you aware of OMB Director Stockman's letter of December 9 to Secretary Lewis and his reply of December 31? Doesn't the Stockman letter seek an interpretation of the statute which is at odds with the plain wording and intent of the law?

Admiral Shear. I am aware of that exchange of correspondence. The particular issue referred to by Mr. Stockman was not the type involving the bauxite. It had to do with the domestic grants, which

really have no relation to this type of cargo.

The CHAIRMAN. Are you aware of the correspondence and discussion between Reynolds, GSA, and OMB about the possibility of sending the Reynolds bauxite already in the United States to the stockpile, thus avoiding ocean transportation?

Would such an arrangement be an illegal circumvention of the

cargo preference law?

Admiral Shear. Yes; I was aware of this. GSA advised me it was under discussion. I informed GSA that I felt it would be illegal and then the matter was dropped. I didn't hear about it further.

The CHAIRMAN. Then this particular scheme—I guess that is the word I want to use—has been abandoned and will not be put in

offeet?

Admiral Shear. It has not been put into effect, and to my knowledge it has been abandoned after our discussion. I have heard nothing further about it.

The CHAIRMAN. Have you taken steps with GSA to avoid a simi-

lar problem with a future stockpile purchase?

Admiral Shear. Yes; I believe we have, Mr. Chairman. My personal relationship with GSA as a result of this exchange I think are very excellent. We communicate well. I have made clear that in all future acquisitions the Maritime Administration has got to be involved from the earliest phase on.

The CHAIRMAN. I am delighted to hear that in view of the fact that, as I am sure we are all aware, a possible new stockpile purchase of Jamaican bauxite. In that instance, I hope, will you not insist that future bauxite purchases be shipped 100 percent on U.S.

flags until the deficiency is made up.

Admiral SHEAR. I am aware of newspaper comments about a possible additional shipment, and I checked with both GSA and the FEMA and have been advised no such shipment is planned at the present time.

With regard to future shipments, should they occur, I will try to do everything in my power to make sure this deficiency will in fact

be made up.

The CHAIRMAN. Thank you very much. I know you are pressed for time, but I will refer to counsel, if they have any particular questions they might like to propound at this time, while you are still here.

Mr. Seifert. Thank you, Mr. Chairman.

In answer to a question posed by the chairman, Admiral Shear, you indicated that environmental problems were discussed with GSA. Did you of your own, within your own department, investigate the environmental problems of GSA? Were you able to confirm that there were such environmental problems in Corpus Christi?

Admiral Shear. With regard to the facilities at Gregory, I had one of my senior representatives in the port of New Orleans visit Gregory to inspect the facilities. He confirmed the requirements for

such discharging.

With regard to the situation at Corpus Christi, I had a lengthy discussion with GSA officials on that subject. The actual selection of the site with the type of powdery bauxite ore involved was their

decision and their responsibility.

Mr. Seifert. You don't have any responsibility under cargo preference laws to determine whether there is any underlying basis for supporting or rejecting the contention of an agency such as the General Services Administration when they make a statement that it is not possible to ship through any port except Gregory, Tex.?

Admiral Shear. In this particular case, they reviewed the problems of Corpus Christi. I made very clear from the start the requirement to find eligible U.S.-flag vessels for the appropriate 50 percent carriage of this cargo, and we did that from the start. Unfortunately, there were none which were able to meet the discharge qualifications at the port of Gregory.

Mr. SEIFERT. Are you aware of any movement of bauxite through

Corpus Christi destined for the Gregory, Tex., storage location?

Admiral Shear. I am not aware of such movement at the present time.

Mr. Seifert. Admiral Shear, with respect to the barter transaction, the barter of dairy products by U.S.-flag vessels, it is our understanding that the reason U.S.-flag vessels are in fact carrying or will carry all or substantially all of our dairy products in barter for an equivalent value of bauxite is that they bid low in competition with other carriers, including foreign flag; that in fact had they not bid low, the entire transaction might indeed have been carried by foreign flag liner vessels between the United States and Jamaica.

Are you aware of this?

Admiral Shear. I am not completely sure I understand your

question, Mr. Seifert.

Mr. Seifert. The inference, Admiral, was that the carriage of the dairy products as barter for the bauxite was as a result of an agree-

ment between the United States and Jamaica that that cargo would in fact be carried on U.S.-flag vessels, but the information this committee has is that there was no such agreement on the part of Jamaica and, in fact, they let bids out, and it was just a matter of happenstance, if you will, that the U.S. liner companies who were successful got the bid.

There was no requirement imposed upon them, nor was there any understanding on the part of Jamaica that they had to accede to or obey or comply in any way with the cargo preference laws.

Admiral Shear. When I learned that the actual shipment of those dairy product cargos were going on U.S.-flag vessels, I did not specifically look into the aspects of Public Law 664, as I mentioned to the chairman. I will be pleased to look into that in depth and provide answers for the record.

[The information follows:]

#### DAIRY PRODUCTS UNDER THE CARGO PREFERENCE LAWS

USDA had performed MARAD that under the barter transaction, the dairy products were priced at world market prices as determined by USDA. At world market prices, their disposal under the barter transaction would not represent a price concession to the other nation involved, and they would not, therefore, be subject to the cargo preference laws.

USDA did inform us that they had requested the Government of Jamaica to utilize U.S.-flag ships for at least fifty percent of this cargo, and that the Government of Jamaica was agreeable to this if the U.S.-flag ships were competitive. USDA advises us that they subsequently spoke with the broker for the Government of Jamaica, to advise them of the fact the U.S.-flag ships should so participate at competitive terms. As I previously stated, the cargo was totally booked on U.S.-flag ships.

Mr. Seifert. As a matter of general policy, do you view barter transactions such as this one transactions subject to cargo preference laws? Is there a policy in the Maritime Administration with regard to the sale of or the barter transportation of products in exchange for cargoes which come in which are clearly under the cargo preference law, such as in this instance?

Admiral Shear. This is my first occasion to get involved in an actual barter situation. As far as cargo preference laws are concerned, it is always my desire as Maritime Administrator to make sure these cargo preference laws are rigidly adhered to. I think my

record of recent months will demonstrate that.

Mr. Seifert. The chairman pointed out that in this particular transaction the Department of Agriculture had to go out on the open market, buy a commodity at full price, and then bartered it at half price.

Would you consider that a concessional sale? If it is concessional, would you insist that if presented with a transaction like this in the future you would insist at least 50 percent be carried in U.S.-flag vessels?

Admiral Shear. I believe I would make such a finding.

Mr. SEIFERT. Do you think that there is anything in our laws, Admiral, which prevents the Maritime Administration from intervening in the type of determination made by the General Services Administration with respect to site or port selection? Do you believe that it would enhance your ability to enforce the cargo preference laws if, in fact, you played an earlier and continuing role in determining which ports cargo preference cargoes would move through?

Admiral Shear. Certainly. It would be appropriate for the Maritime Administration to participate in the earliest possible phases of such a projected or intended purchase.

Mr. SEIFERT. Do you have that power now?

Admiral Shear. We certainly have the authority and responsibility and relationships. The relationships I stress to review any such future intended purchases with the General Services Administration. I assure you that we have agreed to work very closely on any such purchases in the future to avoid the type of problems that came up in this particular case.

Mr. Seifert. I think that one could conclude, Admiral, from your statement that MARAD accepted GSA's determination that neither U.S. bidder was responsive. Was there any way in which you could have used your relationship, as you put it, to convince GSA that a portion of this transaction could indeed be carried by U.S.-flag ves-

sels and to move through a port like Corpus Christi?

Perhaps my question is not clear. If as I alleged earlier there are now bauxite shipments moving through Corpus Christi on their way to Gregory, if this became known to you, would you have used that information in order to leverage GSA into moving a portion of

that cargo through Corpus Christi?

Admiral Shear. I don't know whether leverage is the proper term or not. I would have used that information in all of my discussions in GSA, as we did in January and February, where we were reviewing the situation to make sure any other alternative ports, Corpus Christi or Gramercy, La., or whatever, might be eligible to receive this cargo in U.S. vessels, if in fact they were not compatible with the Gregory.

Mr. Seifert. Do you recall how much time intervened between the time the President made his announcement that he was going to purchase bauxite from Jamaica and the time when you or your

agency first became involved?

Admiral Shear. The President's announcement was made, I believe, on the 24th of November. My staff were involved in discussions with GSA in the month of December.

Mr. SEIPERT. When in the month of December?

Admiral Shear. I think the first discussions were on the 22d of

December, about mid-December.

Mr. Seifert. Do you think as soon as an announcement of the President becomes known to you, that it would be appropriate for an agency responsible for the carriage of goods, which will be the result of this transaction, would be to get involved with it the day after you hear about it, rather than a month after?

Admiral Shear. Well, it wasn't a month after but several weeks after. You are quite correct. Clearly we should have been involved

on the 25th day of November.

Mr. SEIFERT. Thank you very much.

Thank you, Mr. Chairman.

The Chairman. Mr. Sunia, do you have any questions?

Mr. Sunia. None, Mr. Chairman.

The CHAIRMAN. Admiral Shear, I understand you have another engagement, and I would respectfully ask that you leave Mr. Paine or your associates here for perhaps additional questions later on. Admiral Shear. That is quite agreeable, Mr. Chairman.

The CHAIRMAN. Our next witness is Mr. Carroll Jones, Acting Commissioner for the General Services Administration, accompanied by Mr. Kulig.

Mr. Jones, we will recognize you for your statement.

STATEMENT OF CARROLL JONES, ACTING COMMISSIONER, FEDERAL PROPERTY RESOURCES SERVICE, GENERAL SERVICES ADMINISTRATION, ACCOMPANIED BY J. WAYNE KULIG

Mr. CARROLL JONES. Thank you. I am Carroll Jones, Acting Commissioner of the Federal Property Resources Service of the GSA.

GSA welcomes the opportunity to speak before this committee concerning the purchase of Jamaican bauxite for the national de-

fense stockpile of strategic and critical materials.

Bauxite is a material composed principally of aluminium oxide minerals. Types of bauxite ores are generally identified as Jamaican, Surinam and European. The metallurgical grade is used in the production of aluminium. The stockpile goal for Jamaican bauxite is 21 million long dry tons and the inventory prior to our recent purchase was 8.858 million LDT's. The recent purchase of 1.6 million LDT's of bauxite from Jamaica will reduce the deficit by approximately 13 percent.

On November 24, 1981, President Reagan directed the acquisition of 1.6 million LDT of Jamaican type bauxite for the stockpile. The President's direction provided that 1.2 million LDT would be acquired by the General Services Administration utilizing both cash and exchange of excess stockpile materials and 400,000 LDT's by

the barter of surplus agricultural products.

Together with the Department of Agriculture GSA planned the acquisition. The results of the planning and negotiations are evidenced in the Memorandum of Understanding signed on February

26, 1982.

The General Services Administration and Department of Agriculture Agreement provides that for a total cost of \$54,584,000, which includes handling and transportation, the Government of Jamaica will provide our Government with 1.6 million long dry tons of Jamaican grade bauxite to be delivered by September 30, 1982.

There shall be 150,000 to 250,000 LDT's delivered within each 30-day period beginning with the first delivery date of March 17, 1982. As of May 28, 1982 we have received 503,13 LWT's. The operation is being conducted on a 24-hour-a-day, 7-day-a-week basis at the site

in Gregory, Tex.

The storage site was selected after reviewing our mission requirements, time frames for conducting the operation and environmental regulations which might adversely impact the program. In this case, it was determined to be in the Government's best interests to store the bauxite on an existing pile at Gregory. Tex

store the bauxite on an existing pile at Gregory, Tex.

Prior to the commencement of this operation, GSA maintained a
Jamaican bauxite stockpile of 4,961,661 short tons at the Gregory
site. In order to receive 1.6 million additional tons of material, we
needed a site which would accommodate a pile 60 feet high on 23

acres, in an environmentally accepted manner.

The configuration of the existing pile allowed us to build onto it and accommodate the entire acquisition. The commodity is offloaded at dockside via a closed loop, self-unloading system. It is then trucked from a holding house approximately 2,000 yards to the

There is considerable dust generated during this portion of the move. The fact that the transportation is being conducted on private roads and not through residential areas and public highways is significant. Material handling and over-the-road transportation costs have been held to a minimum.

The acquisition of the bauxite was fully coordinated with the departments and agencies of the government that are usually involved in these matters. Although this was essentially a government-to-government arrangement, the contract was between GSA and the Bauxite and Alumina Trading Co.

The contract contained all necessary and applicable clauses that are required by law and regulation. The price of the bauxite was the total cost of the material, transportation and storage. Ocean transportation was discussed and reviewed with the U.S. Maritime

Administration.

The requirements of the Cargo Preference Act were incorporated into the acquisition process and in the signed agreement. The determination that American-registered-flag vessels were not available was based upon the responses to a tender issued by BATCO's subcontractor in accordance with the terms of the agreement and the law. This determination was acknowledged by MarAd by letter dated March 26, 1982.

The agreement to purchase the bauxite, including the barter agreement and BATCO's subcontract agreement with Reynolds Aluminium Co., were all signed at a ceremony in Kingston, Jamai-

ca on February 26, 1982.

The agreement with Jamaica, with all of its complex issues, was negotiated in due time under the law and stands as an example of the excellent relations we enjoy with the Government of Jamaica.

Mr. Chairman, this concludes my formal statement. I would be pleased to answer any questions which you or other members of

the committee may have.

The Chairman. Thank you, Mr. Jones.

Referring to the previous stockpile purchases, was there a purchase of cobalt last year? Please describe and tell the committee if

it was shipped in compliance with the cargo preference laws.

Mr. CARROLL JONES. I am sorry. I am not familiar with that transaction. I recently took over as Acting Commissioner of this service. I am not personally familiar with that. Perhaps Mr. Kulig could address that question about the transaction. I don't know whether he is able to draw any conclusions relative to the legal determination of whether or not the law applies.

The Chairman. Mr. Kulig, can you answer that question?

Mr. Kulig. Yes, sir. Approximately 50 percent of the cobalt we received in this country was shipped under a U.S. flag.

The Chairman. Please describe the recent stockpile purchase of bauxite. Was it shipped on U.S.-flag vessels in compliance with

cargo preference? If not, why?

Mr. CARROLL JONES. I personally am familiar to a bare minimum concerning that transaction, but I know that Mr. Kulig is familiar with it and is prepared to respond.

The CHAIRMAN. Will the gentleman proceed?

Mr. Kulig. Yes. The question was 50 percent. We presently are shipping the bauxite from Jamaica on a Reynolds ship-

The Chairman. I am referring to a recent purchase, a previous

Mr. Kulig. Oh, the shipment from China was all shipped on foreign-flag vessels, approximately 25,000 tons of Chinese bauxite.

The CHAIRMAN. So, it was not shipped on U.S. flag in compliance

with the cargo preference law, as we interpret it.

Mr. Kulig. As we have done with the Jamaican operation, we solicited for U.S.-flag vessels to participate in that operation. The only response to that particular operation was for foreign flags, and it was shipped on two vessels.

The CHAIRMAN. Is it fair to say that GSA took steps attemping to

find suitable U.S. vessels to carry the Chinese bauxite?

Mr. Kulig. Yes, sir.

The CHAIRMAN. All right, sir.

Is GSA aware that Secretary of Transportation Lewis' maritime policy statement issued on May 20 on behalf of the President stated that the cargo preference laws would be adhered to fully?

Mr. CARROLL JONES. Yes.

The CHAIRMAN. Does GSA believe that the cargo preference statute applies to ocean transportion of materials purchased with cash by the United States for the strategic stockpile?

Mr. Carroll Jones. Yes.

The CHAIRMAN. Well, does GSA believe that the cargo preference statute applies to those transportation materials required for the strategic stockpile in exchange for excess stockpile of components; that is, in exchange?

Mr. CARROLL JONES. A barter, are you referring to?

The CHAIRMAN. Yes.

Mr. CARROLL JONES. I would believe so, as far as I understand it. I was not involved in that portion of the transaction, so I am not able to render a firm opinion because I have not looked at it to

that extent, from that angle.

The CHAIRMAN. We are not talking about dairy products, we are talking about the exchange of stockpile materials for a surplus of their stockpile of materials. Do you think cargo preference should apply to that? You know, when we exchange materials for the materials?

Mr. CARROLL JONES. I understand what you are referring to. I have not approached that particular problem, and my familiarity with the Cargo Preference Act is pretty much tied to the Jamaican transaction. So, I cannot render an opinion. I would be happy to respond to you by letter.

The CHAIRMAN. Does GSA believe the cargo preference statute applies to ocean transportation of materials required for the strategic stockpile in exchange for Department of Agriculture commodities controlled by the CCC?

Mr. Carroll Jones. I believe so, Mr. Chairman.

The Chairman. Well, in GSA's view would the cargo preference statute apply to any negotiation for transportation of excess stockpile components which were used in exchange to acquire stockpile material of which there are insufficiencies? Maybe you answered

that. We have a surplus, we exchange it for-

Mr. Carroll Jones. As I understand it, the Cargo Preference Act applies to purchases made by the General Services Administration for materials that would be brought into the country to be added to the stockpile by ship and that each case would be looked at on an individual basis.

I find it very difficult to—as I said, my familiarity with the Cargo Preference Act has been restricted to this one particular event. Any responses that I may make I would have that caveat.

The CHAIRMAN. Don't feel badly because I am afraid a lot of people down in GSA do not understand the Cargo Preference Act. That has been my experience. Excuse me, sir, go ahead.

Mr. CARROLL JONES. The Cargo Preference Act was taken into consideration on each occasion when there are shipments of materials that cross water to be brought to our stockpile, Mr. Chairman. The law, as best I have been able to garner from the record, has been complied with, sir.

The CHAIRMAN. Well, of course there is a slight difference of opinion on that particular subject, and now I am going to recognize

counsel for any questions he might have.

Mr. Weden. Mr. Jones, when did the GSA first consult with the Maritime Administration about this particular bauxite transaction?

Mr. Carroll Jones. I would have to look at the record, sir. I am

advised it was about mid-December.

Mr. Welch. Prior to that first contact with MarAd, did GSA discuss possible shipping arrangements or port designations with representatives of Reynolds Metal or FEMA or BATCO or Jamaica?

Mr. Carroll Jones. I think I better have Mr. Kulig address that,

since he was there at the time.

Mr. Kulig. When we received the notice from the President to start this operation, we began to do our preliminary site study and prior to having our discussion with MarAd we did touch base with FEMA, as an example, to give them an idea of how we were about to go about this operation.

As far as the physical placement of the commodity in this country, the country of Jamaica doesn't really care where it goes, how

we handle it after it came ashore.

Mr. Welch. Did you discuss possible shipping arrangements with any of those parties before you talked with the Maritime Adminis-

tration?

Mr. Kund. We were not in a position to talk about shipping arrangements yet because we didn't really zero in on where we were going to place the commodity or potential sites where we might place the commodity.

Mr. WELCH. Is it true that Reynolds had advised you prior to meeting with the Maritime Administration that they had four

ships that might be compatible with the Gregory facility?

Mr. Kulig. That may have been mentioned. It doesn't stand out

clearly as something that is very strong.

Mr. Welch. Before MarAd's participation, did GSA believe that cargo preference law applied to this transaction?

Mr. Kulig. Yes.

Mr. Welch. So, are you saying that MarAd's intervention was not necessary before you accepted the fact that the cargo prefer-

ence law was applicable?

Mr. CARROLL JONES. I believe that the question relative to the Cargo Preference Act, whether or not it applies, would apply in every instance in a transaction such as this, and that the officials of GSA were cognizant of that, sir.

Mr. Welch. I am not sure that is what my question is. This committee interprets the Cargo Preference Act as applying to every stockpile purchase that involves ocean transportation, regardless of the individual facts of the situation. Does GSA agree with that position?

Mr. CARROLL JONES. I would suggest that we would agree that where there is ocean transportation involved in stockpile materials.

that indeed the Cargo Preference Act comes into play.

Mr. Weich. After GSA acknowledged that the cargo preference law applied to this transaction, did GSA ask Reynolds Metal to propose a way of restructuring this sale so that the cargo preference law would not apply?

Mr. CARROLL JONES. No.

Mr. Welch. We have a letter from Reynolds dated January 20, addressed to Mr. Kulig, which with the chairman's permission we can put in the record at this point. It says:

DEAR MR. KULIG: GSA and the Government of Jamaica have asked Reynolds to describe the basis on which Reynolds might make available its own bauxite so that the planned GSA purchase of Jamaican sourced material can begin promptly.

Your question grows out of believe that the commencement of the direct purchase transaction, which you have been contemplating between GSA and an agency of the Jamaican Government, will be delayed pending resolution of the question of whether any of the bauxite must be moved from Jamaica on U.S.-flag vessels.

er any of the bauxite must be moved from Jamaica on U.S.-flag vessels.

Our proposal is set out in letter and in a word, Reynolds will sell its own material in the United States to the Jamaican Government for resale to GSA and Reynolds

will commit to purchase replacement bauxite from Jamaican sources.

R. E. FEATHERSTONE.

Are you familiar with that letter?

Mr. Carroll Jones. I believe that plan was rejected.

Mr. Welch. The question is, did GSA ask Reynolds to propose such a proposal?

Mr. CARROLL JONES. No.

Mr. Welch. Is the Reynolds' letter incorrect when it says GSA and the Government of Jamaica have asked Reynolds to describe, so forth and so on?

Mr. Kulig. We did not---

Mr. Welch. Would you like a copy of the letter?

Mr. Kuizo. I have one. We cannot speak for the communication between the country of Jamaica and the Reynolds Corp., bearing in mind that Reynolds does not have a direct contractual relationship with us, their relationship is with Jamaica.

What they discussed is between them, but they did not propose that kind of an operation, and we have not solicited that kind of an

operation.

Mr. WELCH. Reynolds I think did propose that type of an operation, but you say you did not solicit?

Mr. Kulig. That is correct.

Mr. Welch. Did GSA officials ever meet with OMB officials to

discuss an arrangement similar to the Reynolds proposal?

Mr. CARROLL JONES. I have no knowledge about that. I certainly would not deny that there may have been meetings with OMB officials during the course of this transaction. I don't know what transpired. Until Mr. Kulig was present, he wouldn't know, either.

Mr. Welch. The committee has access to documents not prepared by GSA which describe such a meeting, refer to such a meeting between GSA budget officials and OMB budget officials. We would be glad to discuss with you more fully after the hearing the informa-

tion we have.

I think the committee would appreciate getting more information about such a meeting from you. The point being that it appears that after GSA acknowledged the cargo preference law, there were discussions, whether initiated by GSA or others, about a proposal that would have avoided the cargo preference law.

Mr. CARROLL JONES. I will see that whatever information is avail-

able is provided to the committee, sir.

The information follows:

We have reviewed our files and can find no documentation recording the events of the meeting which you indicated that was held between GSA and OMB budget officials.

Mr. Welch. Why was the proposal offered by Reynolds not

agreed to?

Mr. CARROLL JONES. I was not part of making that decision. It would be speculation because I have not looked into it. I vaguely recall that proposal, the terms of it, but I was not party to any decisions as to how the transaction ultimately was consummated. So, I am afraid I can't answer that question.

Mr. Welch. Mr. Kulig?

Mr. Kulig. I can't add anything further.

Mr. Welch. The proposal was to you, Mr. Kulig. Wouldn't you have been involved in making a disposition of the proposal from

Reynolds?

Mr. Kulig. At that time I was Director of Operations for the Strategic Stockpile, and that is outside of my area of responsibility. I was serving as the focal point for communicating with Reynolds and GSA and BATCO on operational matters. That decision would be made by the commissioner.

Mr. WELCH. Mr. Markon?

Mr. Walker Will Marker

Mr. Kulig. Yes, sir.

The CHAIRMAN. In conclusion on this particular discussion, this effort to reconstruct the sale upsets me. It seems a knowing effort to undermine the cargo preference law even after GSA had assured me not on one occasion but three occasions that the laws would be upheld.

Apparently, with no effort to belittle the two witnesses here this afternoon, we might have the wrong witnesses. I am not sure. Maybe this meeting should have been held about a month ago.

In any event, does counsel have any further questions?

Mr. Welch. Is it true that GSA agreed with the solicitation in terms used when carriers were sought to transport the bauxite?

Mr. CARROLL JONES. Yes.

Mr. Welch. Is it true that these terms require the port of discharge be the Reynolds facility at Texas and the ships be compatible with special discharge systems at Gregory and certain rates of discharge be made?

Mr. Kulig. That is correct.

Mr. Welch. Are only foreign-flag ships being used to ship the bauxite now?

Mr. Kulig. At this time, yes.

Mr. Welch. Do these ships all belong to a Reynolds-owned subsidiary?

Mr. Kulig. Yes. I think it is Caribbean Lines.

Mr. Welch. To your knowledge are there any U.S. ships now in existence which are equipped to use the Gregory discharge facility

that is presently configured?

Mr. Kulig. It is my understanding our earlier communications with the shipping industry when we solicited for participants, that there was a ship who contacted us out of the Great Lakes who looked into participating with the U.S.-flag ships, looked into participating in this operation, and after completing their own internal accounting, they decided that it was not profitable for them to participate, and they withdrew?

Mr. Welch. Are there any foreign-flag ships other than Reynolds which are equipped to meet the Gregory facility discharge specifi-

cations?

Mr. Kulig. It is my understanding we reviewed this in December, January, and February. I believe there is one ship in the Netherlands.

Mr. Welch. Is it true that GSA knew at the time it agreed to the specifications that there were only a limited number of ships which could meet the specifications?

Mr. Kulig. I didn't, but I would presume that there would be limited numbers of ships based on the configuration of the facility

which we planned to send these to.

Mr. Welch. What other storage sites did GSA consider for stor-

ing the bauxite?

Mr. Kulig. We considered all of our existing sites for the storage as well as pursuing, identifying additional sites for this operation.

Mr. Welch. Is the Gramercy, La., site more accessible to U.S.flag ship participation?

Mr. Kulig. I would say yes, it is accessible for U.S. flags.

Mr. Welch. Could you compare the cost of preparing the Gregory site to the possible cost of preparing the Kaiser site for storage after this bauxite?

Mr. Kulig. Yes. The Kaiser site required two major items. One was preparing the physical ground to receive the commodity, and the second item was a requirement to install a very sophisticated offloading system to take the commodity from the ship to the area which was identified where the commodity was to be offloaded.

Mr. Welch. Are there other ports located near Gregory which

might handle or could handle Jamaican bauxite?

Mr. Kulig. I don't know of any other than Corpus Christi. Mr. Welch. Could U.S.-flag ships carry this to Corpus Christi?

Mr. Kulig. It could arrive in Corpus Christi.

Mr. Welch. Why did the specification exclude that as a dis-

charge point?

Mr. CARROLL JONES. Having visited the Corpus Christi area and the Gregory site, I think that to properly address that question you have to see what we are dealing with in terms of what this Jamaican bauxite is, the amounts that we are dealing with and the facilities as they exist at Corpus Christi, and the transportation of any material by truck or however from the offloading location.

The environmental consideration of trying to handle that sort of material at the Corpus Christi dockside, the safety factors involved, and of course the spreading effect of transporting that material would turn everything from the port and the 20-mile trip out from

the stockpile would be bright red.

There is a safety hazard involved when that material gets on a highway, and if there is a rain storm, the highways are going to be-you might just as well pour oil on them. I would anticipate that any material that was offloaded would cause red dust to fly and that we would not be into the project to any significant degree before we were enjoined for environmental pollution problems.

As an example, we bought a jar of—this is a jar of Jamaican bauxite. As you can see, it is a real fine powdery substance. To just take the cap off the top of this, if you look at it, you can see that

there is smoke or a red dust flying out of it.

To take this and bring this up to 1.6 million tons, moving it, would create enormous problems in the Corpus Christi area.

As I looked at it in retrospect—as I said, I was not involved at the time the decision was made—it was clear to me from going down on the site, seeing the operation, and talking to the people in Corpus Christi, port people, talking to people from the aluminum company, that that sort of a recommendation, of moving this type of bauxite was totally something that could not be logically done.

Mr. Welch. Are there not ways of lessening the environmental

problems, such as covering the bauxite?

Mr. CARROLL JONES. Well, as I said in my statement, we were offloading long wet tons from the ship. That is what we offload. Nevertheless, it has a water content of about 16 percent. Nevertheless, you still wind up with this kind of a part of it as the material sits

there—it dries up from the top down.

I have watched these long wet tons be offloaded. As it drops off the truck, this enormous cloud of dust comes flying upward. Aside from that, our financial considerations, we are moving this, transportation is by weight. Assume for the moment we added additional water. All we are doing is moving water from one place to another. And the part of what we are doing here—we have our strategic considerations as to what we are doing. We are locating bauxite at a stockpile strategically located next to the plant which is going to process it.

The second part of it is cost containment. Our cost containment, it certainly would be outside of the cost containment plans we have if we were to transport 20 percent of water some 20 miles, when we

are doing it on a per-pound basis.

Mr. Welch. Could you provide the committee with information explaining the higher costs that would be associated with trucking from Corpus Christi?

Mr. CARROLL JONES. I would be delighted, sir.

Mr. Welch. Did GSA ever contact Corpus Christi port officials about a way of overcoming the environmental problems?

Mr. CARROLL JONES. Mr. Kulig tells me that they did.

Mr. Welch. Did GSA ever talk with Corpus Christi port officials about a way of way of overcoming the environmental problems?

Mr. CARROLL JONES. Mr. Kulig advises me they did.

Mr. Welch. What officials were those?

Mr. Kulig. I would have to submit that for the record. They were members of the chairman of the port's staff.

[The information follows:]

The delivery cost from Corpus Christi to the stockpile site at Gregory, Texas (exclusive of discharge costs at the port) is \$13,751,038 at 15 percent moisture. The delivery cost from Reynolds' wharf to the stockpile site is \$3,179,424 (this includes off-loading costs from the ship to the wharf). Cost difference is \$10,572,411.

Our records indicate that conversations with the Port Authority basically were in the area on wharf tariffs. Major discussions on environmental problems were conducted with the Texas Air Control Board which has jurisdiction over air quality in

the Corpus Christi area.

Mr. Welch. Did GSA ever contact Corpus Christi port officials to

see if they agree that environmental problems actually exist?

Mr. Kulig. They acknowledged environmental conditions existed. They called our attention to the kind of problems we encounter, in addition to a number of other people who called our attention to the same problem.

Mr. Welch. Our committee staff has spoken with the port director at Corpus Christi. They say that the port could have handled the bauxite shipment and could have done so without major envi-

ronmental problems.

They also say during the last year Reynolds has actually shipped through their port, Corpus Christi, some 300,000 tons of Jamaican bauxite for delivery to the Gregory facility. Are you aware of that?

Mr. Kulig. No. I am not.

I might ask you one question. When you say shipped through the Port of Corpus Christi, does that mean it comes through the port on to Gregory or is it offloaded in Corpus Christi?

Mr. Welch. Offloaded at Corpus Christi. Mr. Kulig. No, I wasn't aware of that.

Mr. Welch. At what other locations, other than Gregory, does GSA have bauxite stockpiles?

Mr. Kulig. We have 17 other sites, mostly on the Gulf and a few

in the Midwest.

Mr. Welch. At these other sites, are there port facilities nearby at which U.S.-flag ships could discharge Jamaican bauxite?

Mr. Kulic. Yes, sir.

Mr. Welch. Once the 1.6 million tons of bauxite is placed in the Gregory stockpile, will that stockpile have additional capacity at that site?

Mr. Kulic. That is a tough question to answer. I am not sure it has very much capacity now, additional capacity, unless we would

acquire additional surface area.

Mr. Welch. So absent action by you, if there are future bauxite purchases for the stockpile, we have to use storage sites other than at Gregory?

Mr. Kulig. I would like to answer you in this way. Based on the requirements of the strategic stockpile, we never try to locate all of one commodity in one area. So what that would mean, if we were to acquire additional Jamaican bauxite, we would look to other areas and have to come up with a different operational sequence.

Mr. Welch. Won't you be confronted with these environmental problems of trucking the bauxite from the port of discharge to the

stockpile site at these other sites?

Mr. Kulig. That is a consideration. We would take that into our

planning. We may have to acquire a site elsewhere.

Mr. Welch. Is it true that the stockpile, even after the purchase of 1.6 million bauxite, will still be deficient in bauxite?

Mr. Kulig. Yes, sir.

Mr. Welch. Does GSA know of plans to purchase additional Jamaican bauxite for the stockpile?

Mr. Carroll Jones. No.

Mr. Welch. Could you comment on Prime Minister Seaga's recent speech in which he says that the United States will buy another 1 million tons of bauxite in the coming fiscal year?

Mr. CARROLL JONES. No. I cannot comment on that.

Mr. Welch. Are you aware of that speech?

Mr. Carroll Jones. No.

Mr. Welch. Mr. Kulig?

Mr. Kulig. Yes, I am aware of the speech.

Mr. Welch. To your knowledge, have there been any discussions between GSA and Jamaica, or BATCO, or other people within the administration about an additional bauxite purchase?

Mr. CARROLL JONES. To my knowledge there have been no discussions. Of course I cannot speak for what may go on in other agen-

cies of the Government. There is none I am aware of.

Mr. Welch. Would GSA today commit itself in carrying all future bauxite purchases on U.S. flagships, until the deficiency oc-

curring in this shipment is made up?

Mr. CARROLL JONES, I'm afraid I cannot commit the agency to anything. As I said, each purchase, if there are future purchases, will have to be looked at on a case-by-case basis. And I am in no position to make any guarantees as to methods of transportation at this time.

Mr. Welch. Is it common practice to locate the storage for baux-

ite near a plant which will ultimately process the bauxite?

Mr. CARROLL JONES. It is now. I recognize many of the sites which were positioned back perhaps 30 years ago. They were originally located next to processing sites or the plant which would put it into use. But at that point, when we select a location such as the Gregory site to store our bauxite, we select that with the thought in mind that it should be located in fairly close proximity to the processing plant.

Mr. Welch. Two last questions.

While the bauxite transaction was being negotiated and the shipping arrangements being discussed, did anyone from another executive agency discuss with GSA on the need to ship this bauxite on foreign flagships or to avoid the cargo preference law?

Mr. CARROLL JONES. I am not aware of anything such as that—although I certainly am not in much of a position to claim that it never happened. I simply do not know.

Mr. Welch. Mr. Kulig?

Mr. Kulig. I am not aware of any. I have no knowledge of that. Mr. Welch. Finally, the statistics we have all seen cited indicate that the bauxite deal involves about 55 million dollars' worth of value. Does that not exclude the value of the bartered dairy products? Doesn't that just include the cash payment, plus the value of the exchange of minerals from the stockpile?

Mr. CARROLL JONES. I don't think so. I think that is the total

amount. Mr. Kulig can look it up.

Mr. Welch. For example, Mr. Jones, it is my understanding that it contains the translated amount for bartered goods. But then again, I could be wrong. We were looking at a Jamaican bauxite agreement executive summary, which Mr. Markon provided this committee in a letter dated April 16, and it indicates that total cost—it says material, 1.2 million long dry tons, \$31 million; transportation, 1.6 million long dry tons, \$15.5 million, for a total of \$54.5 million. That excludes the value of the 400,000 long dry tons bartered for the dairy products.

Mr. CARROLL JONES. Based on what you are referring to, I agree

with you.

Mr. Welch. So actually the cost or the value of this transaction is significantly higher than \$54.5 million, and you would add to that either the value of the contract assigned to the bartered dairy products or the even higher cost of the bartered dairy products to the Government.

Mr. CARROLL JONES. That would appear so, yes.

The CHAIRMAN. Mr. Sunia?

Mr. Sunia. No questions, Mr. Chairman.

The CHAIRMAN. Mr. Jones, thank you very much for your appearance here this afternoon.

Mr. Kulig, thank you.

The CHAIRMAN. Our next witness is Mr. Paul Krueger, Assistant Associate Director for Resources Preparedness of the Federal Emergency Management Agency.

Would the GSA representatives remain in the room.

STATEMENT OF PAUL K. KRUEGER, ASSISTANT ASSOCIATE DIRECTOR FOR RESOURCES PREPAREDNESS, FEDERAL EMERGENCY MANAGEMENT AGENCY

Mr. Krueger. Mr. Chairman, members of the committee, I welcome the opportunity to appear at this hearing today and to review the responsibilities of the Federal Emergency Management Agency with regard to emergency resources preparedness. The need to insure availability of raw materials for defense is a vital one. We are becoming more and more aware that the United States has grown increasingly dependent on foreign nations for strategic raw materials.

As part of the resources preparedness program, FEMA has the responsibility for overall stockpile policy decisions concerning the determination of what materials are strategic and critical and the quantity and the type of materials to be held in the national defense stockpile. Stockpile management functions were delegated by

Executive order to the Administrator of General Services.

Amendments to the Strategic and Critical Materials Stockpiling Act were passed on July 30, 1979. For the first time in the history of the program there is a legislated 3-year stockpile planning period, a transactions account from which sales receipts can be used for purchases, and a strong congressional endorsement to barter for needed materials.

On March 13, 1981, the Reagan administration demonstrated its commitment to the program by ordering the first major stockpile

acquisitions in over 20 years.

There are presently 61 groups and individual minerals, metals, and other industrial materials included in the stockpile. A goal is established for each of these materials, and this goal represents the inventory level required to insure national security in the event of a national emergency with a duration of up to 3 years.

After the goals are calculated to determine the materials that will be included in the stockpile, an annual materials plan is developed specifying materials and quantities to be purchased or dis-

posed of during the following fiscal year.

The plan is developed by an interagency annual materials plan steering committee chaired by our agency. There are 10 other agencies represented on the interagency committee, and they are all involved in the planning process. Subsequently, the plan is submitted to the National Security Council, and it forms the basis for the administration's request to the Congress for specific materials transactions.

Legislation passed during the first session of this Congress man-

dates that a 5-year plan be submitted annually to Congress.

On November 24, 1981, President Reagan directed the acquisition of 1.6 million tons of Jamaican-type bauxite for the stockpile, Bauxite is the basic raw material used to produce aluminum, a significant component in military weapons systems and virtually all aerospace systems. Because of this importance to both military and basic industrial production, bauxite is included on the list of strategic and critical materials in the aluminum family grouping.

Jamaican-type bauxite is one of several major types of bauxite used in the United States. It is stockpiled as a distinct type because industrial plants are set up to process specific types of bauxite. The stockpile is designed to help insure that all plants can operate in a defense emergency, and the dominant form of bauxite used in U.S. refineries is Jamaican-type. Currently, the stockpile is 12 million

tons below its goal for Jamaican-type bauxite.

In looking ahead at the transportation policy issues for materials acquisitions, it is evident that the Maritime Administration can assist with portions of the annual materials plan process. Their participation would provide information that could be used in the development of transportation cost estimates and procedures. In the future I intend to consult the Maritime Administration in this process as overall transportation issues arise. I believe that this early involvement of MarAd will be helpful in the accomplishment of stockpile planning.

This concludes my prepared statement. I would be happy to answer any questions you may have.

The CHAIRMAN. Thank you, Mr. Krueger.

How are goals set for each material and how are priorities

among materials set?

Mr. Krueger. It is a lengthy process. First, based upon Department of Defense expenditures on weapons systems and what a wartime civil economy would look like, we calculate what the raw material requirements, including bauxite, are for the total economy. Once we have done that, we look at what is the available, anticipated supply during wartime. Where we view this supply as insufficient; that is, unable to meet our requirements, we would stockpile an amount sufficient to meet the total requirements of the economy.

This is a process which involves a number of different departments and agencies, including the Department of State, Department of Commerce, the Department of the Interior, the Department of Defense, the Department of Treasury, and some other

agencies.

The CHAIRMAN. What is the normal relationship between FEMA

and GSA regarding stockpile operations?

Mr. Krueger. We are responsible for setting the overall stockpile goals, designating the quantity and quality of materials to be stockpiled, and we chair an interagency committee to come up with the annual shopping list. GSA participates in that process; and then they would take the annual shopping list and, depending upon market conditions, select from that list the materials that they would purchase.

The Chairman. In this particular purchase of bauxite, were

normal procedures followed?

Mr. KRUEGER. To the best of my knowledge they were, sir.

The CHAIRMAN. In other words, who made the decision about the

bauxite—the committee in question?

Mr. Krueger. Early on, in the beginning of March of 1981, FEMA published a list of the 13 materials which had the highest priority for acquisition. Bauxite was one of those materials. Cobalt was another, and you have heard about the purchase of cobalt as well.

In November, there was a confluence of events that led to the President directing that of those 13 materials that we had identified as high priority, that we would proceed with the bauxite. When I say a confluence of events, I mean the material had already been identified as required for the stockpile, and it had been identified as a high priority item. The foreign policy initiatives that were ongoing in the Caribbean area also contributed so that, as all of these pieces came together, the President made his announcement.

The CHAIRMAN. Have there been other instances when the Presi-

dent intervened to direct a purchase?

Mr. Krueger. Certainly he intervened in March when he directed the beginning of the entire program and specified that \$100 million would be spent in this area. That did represent the first purchases for the stockpile in something like 20 years. And I really

cannot comment on what happened 20 years ago, whether or not previous Presidents have intervened.

The CHAIRMAN. Well, would you have made this purchase had it

not been for the President's directive?

Mr. Krueger. It was certainly one of the materials on the list that had been identified as a high priority for acquisition. Perhaps the President's directive accelerated when that might occur, but it is within the broad framework of national security priorities which had been previously established.

The Chairman. Why is bauxite a strategic and critical mineral?

The CHAIRMAN. Why is bauxite a strategic and critical mineral? Mr. KRUEGER. Basically because it is used to make aluminum. Aluminum goes into aircraft and a lot of other weapons systems. It is an essential element, not only for the Department of Defense,

but really for the economy at large.

The CHAIRMAN. What is the stockpile goal, what is the current

inventory, and what is our deficiency, if any?

Mr. Krueger. We stockpile two basic types of bauxite—refractory bauxite, and metallurgical bauxite. Within the metallurgical bauxite, we have a stockpile goal for Jamaican-type bauxite of 21 million tons, and a current inventory of about 9 million tons.

We also stockpile Surinam-type metallurgical bauxite. We have a stockpile goal of a little over 6 million tons, and have a little over 5 million tons in inventory.

The CHAIRMAN. Would the stockpile goal increase significantly

with Jamaican bauxite?

Mr. Krueger. The stockpile goals were originally set in 1976, and were recalculated using the same fundamental policy parameters in 1980. At that time we reduced the stockpile goal for alumina, which is an intermediate form between bauxite and aluminum. What we had indicated as the stockpile goal for alumina, we shifted back into a stockpile goal for bauxite.

The CHAIRMAN. If the reason for an increase was clear, the troubled political environment in Jamaica, has the election of Seaga dispeiled those fears, and should not our stockpile goal have been

reduced accordingly?

Mr. Krueger. I would not want to comment in open session on what I will call the foreign policy nature of our consideration. I will note that in 1942 the United States had a fleet of some 60 bauxite barges. By the beginning of 1943, 52 of those barges had been sunk, so transportation and the vulnerability of transportation in the Caribbean is something that we take into account.

The CHAIRMAN. How does Jamaican bauxite rank in importance

with other minerals on the stockpile list?

Mr. Krueger. There are 43 materials for which we are in deficit; that is, our inventories are not sufficient to cover our stockpile goals.

The CHAIRMAN. Would it be fair to say that it was purchased

ahead of more critical minerals in this instance?

Mr. Krueger. As I started to say, there were 43 in deficit. A year ago last March we identified bauxite as one of the top 13 for acquisition. Within that list of 13, we did not imply any priority and certainly did not intend to imply any priority. Our intent is to make up a shopping list from which items would be selected as market conditions and other conditions warrant.

The CHAIRMAN. What role does FEMA play in deciding transpor-

tation and storage sites for stockpiled materials, if any?

Mr. KRUEGER. We a long time ago established some general policies to be used in regard to transportation and storage. There are about 113 different stockpile sites all around the Nation. There are four stockpile sites for Jamaican-type bauxite, each one co-located with the four plants which process Jamaican-type bauxite.

If you have a million tons of material, and you need to use it in an emergency, you do not want to transport it a long way, so we would want to stockpile it colocated with the using plant. For materials less bulky than bauxite, we would tend to stockpile at a storage depot that could serve many using industries or industrial plants.

The CHAIRMAN. Do you consult with GSA on transportation and

storage, and did you in this case, about the Jamaican bauxite?

Mr. Krueger. We were aware of the considerations. We partici-

pated in those discussions.

As long as we were satisfied that there was nothing that would adversely impact national security, we would defer to GSA for the ultimate selection, and we were able to satisfy ourselves that the national security requirements were being met.

The CHAIRMAN. Is FEMA aware of the various cargo preference

laws?

Mr. Krueger. Yes, sir.

The CHAIRMAN. Does the cargo preference statute apply to ocean transportation of materials purchased by the strategic stockpile?

Mr. Krueger. As I understand that act, it applies to all Government-impelled cargo, and this would be Government-impelled cargo.

The CHAIRMAN. In this particular transaction, did FEMA officials ever discuss with GSA or other executive branch agencies the applicability of cargo preference laws? Did you get involved in that?

Mr. Krueger. I had a meeting with some senior officials of the Maritime Administration the first week in January. They expressed their concerns that they were not sure that American shipping had been given the opportunity or sufficient opportunity to bid. I agreed with the maritime officials that if this became a problem, I would get more involved. It was appropriate, however, that if there was a problem, it could be resolved between MarAd and GSA. We in FEMA would not normally get involved on a day-to-day transaction regarding the stockpile except on an exception basis.

The Chairman. Did anyone in an executive branch agency ever press you or discuss with you and FEMA officials the desirability of shipping this bauxite on foreign-flag ships or avoiding the cargo

preference laws?

Mr. Krueger. I was present at a meeting that involved a number of executive agencies. The sense of that meeting was that, within the terms of the Merchant Marine Act, no matter how you structured this transaction, you would be using Government-impelled cargo, and that all of the requirements of the statute would have to be followed.

The CHAIRMAN. Are there definite or possible purchases of Ja-

maican bauxite for the stockpile in the future?

Mr. Krueger. I am aware of Prime Minister Seaga's remarks. I am unaware of, and I certainly have not been involved in any discussions regarding specific future purchase of Jamaican bauxite.

The CHAIRMAN. Are there future purchases planned of other

stockpile materials at the present time?

Mr. Krueger. To the extent that Congress appropriates money for that activity, we will be purchasing more stockpile materials. The Chairman. Just watch the budget carefully, and see what

happens, if we ever get a budget.

What was the fiscal 1982 appropriation for stockpile purchases? Mr. KRUEGER. There was no appropriation in fiscal 1982. Under the terms of the continuing resolution, \$57.6 million was made available for this activity.

The CHAIRMAN. Is there any carryover of funds from prior years? Mr. KRUEGER. Under the terms in a continuing resolution, \$100 million was made available in fiscal year 1981. These moneys are available for 5 fiscal years. I believe virtually all of the \$100 million has been committed, although it has not all been spent. And most of the \$57.6 million has been obligated, but has not been spent.

The Chairman. I understood you to say a moment ago that the

budget request for fiscal 1983 is zero.

Mr. KRUEGER. The budget request for fiscal 1983 is \$120 million.

The CHAIRMAN. I misunderstood you then.

I do not have any further questions. Does counsel have any?

Mr. Seifert. I have one small question.

Mr. Krueger, it is my understanding from a submission by you, or by a private research firm, that there are some 14 million tons of bauxite in the national defense stockpile. Is that your understanding?

Mr. Krueger. That is approximately correct.

Mr. SEIFERT. Of that, 9 million tons is Jamaican type. Of that 9 million tons of Jamaican-type bauxite, how much is located in Gregory, Tex., right now?

Mr. KRUEGER. If you would like, I could give you where all of it

is located.

Mr. Seifert. Well, just rough percentages then.

What percentage of the national defense stockpile is lcoated at Gregory, Tex.?

Mr. Krueger. About 40 percent.

Mr. Seifert. Forty percent. And how many sites are there total?

Mr. KRUEGER. Four.

Mr. Seifert. The previous witnesses, Messrs. Jones and Kulig, indicated that it is appropriate to locate the stockpile material close to the processing facility. And I assume that that is consistent with FEMA's responsibility and goals?

Mr. KRUEGER. That is correct.

Mr. Seifert. Is it in the national interst to add additional stockpile materials at Gregory, Tex., when they already have 40 percent?

Mr. Krueger. Gregory, Tex., is the largest single plant to process Jamaican-type bauxite in the United States, so you would expect that there would be more there than at any other site.

Mr. SEIFERT. Are there any other sites that you know of that are underutilized that could be utilized and hence stockpile material for emergency use? Mobile, for instance?

Mr. KRUEGER. Mobile uses the Surinam-type bauxite rather than

Jamaican-type bauxite.

Mr. Seifert. And there is no interchange ability of the two baux-

ite types when you are processing alumina?

Mr. KRUEGER. These are different raw materials. Each plant is basically a chemical plant, and is structured to process a particular type or blend of bauxite. There are three plants which use 100 percent Jamaican-type bauxite. There is a fourth plant which uses a mix of Surinam- and Jamaican-type bauxite. And then there is a plant in Arkansas which uses locally produced bauxite—a small plant—which is considered to be of Jamaican type.

Mr. Seifert. There is no difference in the quality of the alumi-

num, is there, based upon the type of bauxite that is used?

Mr. KRUEGER. No: the key is the ability of an individual plant to

process the incoming raw material.

Mr. SEIFERT. So from the point of view of the strategic value of the stockpile, it really does not matter what type of bauxite is stored, does it, as long as it is close to a plant that is capable of handling that type of bauxite.

Mr. Krueger. Yes; and consistent with the capacities of each

plant.

Mr. SEIFERT. Is the Gregory location now saturated or will it be?

Mr. KRUEGER. It will not.

Mr. Seifert. Do you anticipate that the future requirements of the stockpile for Jamaican bauxite will come into Gregory?

Mr. KRUEGER. That is a decision that hasn't been made yet.

Mr. Seifert. It will be a decision made by you with GSA, or GSA with Reynolds Metals?

Mr. KRUEGER. Reynolds Metals does not participate in the na-

tional security decisionmaking process.

[The statement of Paul K. Krueger follows:]

# STATEMENT OF PAUL K. KRUEGER, ASSISTANT ASSOCIATE DIRECTOR FOR RESOURCES PREPAREDNESS, FEDERAL EMERGENCY MANAGEMENT AGENCY

Mr. Chairman and members of the committee, I welcome the opportunity to appear at this hearing today and to review the responsibilities of the Federal Emergency Management Agency with regard to emergency resources preparedness. The need to ensure availability of raw materials for defense is a vital one, and we are becoming more and more aware that the United States has grown increasingly dependent on foreign nations for strategic raw materials.

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the national defense stockpile. Stockpile management functions were delegated by executive order to the Administrator of General Services.

Amendments to the Strategic and Critical Materials Stock Piling Act were passed on July 30, 1979, and for the first time in the history of the program, there is a legislated 3-year stockpile planning period, a transactions account from which sales receipts can be used for purchases, and a strong congressional endorsement to barter for needed materials. On March 13, 1981, the Reagan administration demonstration demonstration demonstration demonstration. strated its commitment to the program by ordering the first major stockpike acquisitions in over 20 years.

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terials, and this goal represents the inventory level required to ensure national security in the event of a national emergency with a duration of up to 3 years.

After the goals are calculated to determine the materials that will be included in

the stockpile, an annual materials plan is developed specifying materials and quantities to be purchased or disposed of during the following fiscal year. The plan is developed by an interagency annual materials plan steering committee chaired by our Agency. There are 10 other agencies represented on the interagency committee, and they are all involved in the planning process. Subsequently, the plan is submit-ted to the National Security Council and it forms the basis for the administration's request to the Congress for specific materials transactions. Legislation passed during the first session of this Congress mandates that a 5-year plan be submitted annually

On November 24, 1982, President Reagan directed the acquisition of 1.6 million tons of Jamaican-type bauxite for the stockpile. Bauxite is the basic raw material used to produce aluminum, a significant component in military weapons systems and virtually all aerospace systems. Because of this importance to both military and basic industrial production, bauxite is included on the list of strategic and critical materials in the aluminum family grouping. Jamaican-type bauxite is one of several major types of bauxite used in the United States. It is stockpiled as a distinct type because plants are set up to process specific types of bauxite. The stockpile is designed to help ensure that all plants can operate in a defense emergency and the dominant form of bauxite used in United States refineries is Jamaican-type. Currently, the stockpile is 12 million tons below its goal for Jamaican-type bauxite.

In looking ahead at the transportation policy issues for materials acquisitions, it is evident that the Maritime Administration can assist with portions of the annuals materials plan process. Their participation would provide information that could be used in the development of transportation cost estimates and procedures. In the future, I intend to consult the Maritime Administration in this process as overall transportation issues arise. I believe that this early involvement of Marad will be

helpful in the accomplishment of stockpile planning.

This concludes my prepared statement. I would be happy to answer any questions you may have.

Mr. Seifert. Thank you, Mr. Krueger. Thank you, Mr. Chair-

The Chairman. Thank you, Mr. Krueger. We appreciate your

presence.

The next witness is Mr. Thomas M. Dyer, with Equity Carriers, Inc., and Mr. Alan Jones, president of the Antares Chartering and Shipping Corp., will also be on the panel.

Glad to have you gentlemen here today.

# STATEMENT OF THOMAS M. DYER, EQUITY CARRIERS, INC., ACCOMPANIED BY PAUL KIRCHNER

Mr. Dyer. Thank you, Mr. Chairman. Mr. Chairman, members of the committee, with me today is Mr. Paul Kirchner, also with the law firm of Kurrus & Dyer. We are here today, Mr. Chairman, appearing on behalf of Equity Carriers. Equity Carriers is the chartered owner of the Star of Texas, a new 36,000 deadweight ton dry bulk American-flag vessel, delivered this past January, from Levingston Shipbuilding Co. in Orange, Tex.

The Star of Texas is one of the U.S.-flag vessels that was offered for participating in the carriage of the Jamaican bauxite purchased

by GSA.

We have already submitted a prepared statement which we ask to be included in the record.

The CHAIRMAN. Without objection.

Mr. Dyer. With your permission, I would like to present a brief summary of those comments.

The Chairman. The gentleman may proceed.

Mr. Dyer. Equity Carriers thanks the committee for the opportunity to present testimony today and wishes to express its appreciation for the interest shown by the chairman in this matter. We fully support the efforts of the committee to investigate the facts and circumstances involved in the failure of U.S.-flag ships to participate in the transportation of the 1.6 million tons of Jamaican bauxite purchased by GSA for the national stockpile program.

It should obviously be a matter of concern whenever such a large volume of cargo clearly subject to the Cargo Preference Act (Public Law 664) is not carried on U.S.-flag ships. In addition, however, the manner in which GSA has avoided the requirements of Public Law 664 and the open antagonism that GSA officials have displayed toward U.S.-flag shipping raises serious questions concerning not only that Agency's willingness to comply with the law in the future, but the potential impact that this experience will have on the future treatment of U.S.-flag shipping by other agencies as well.

Therefore, even if the lack of U.S.-flag participation in this particular cargo movement can be justified, it is important that the basis for such justification be brought to light in order that any doubts about the enforceability of cargo preference laws may be

satisified.

An examination of the transportation arrangements made of the Jamaican bauxite purchased by GSA in February has become even more crucial and timely in view of recent reports of the planned purchase of an additional 1 million tons of bauxite from Jamaica for fiscal year 1983. While it is too late to reverse the actions of GSA with respect to the transportation of the bauxite purchased this year, the shortfall in U.S.-flag participation resulting from those actions should be remedied, in part, by shipping 100 percent of such 1983 bauxite tonnage on U.S.-flag ships.

Based on our involvement in this matter and on information that we have been able to secure from GSA, it is our belief that GSA did not comply with the requirements of Public Law 664. Specifically, we are unaware of any facts that would support a finding that GSA took all necessary and practicable steps to insure that at least one-half of the bauxite would be transported on U.S.-flag ships as required by the law. While we recognize the obvious importance of this purchase in terms of our relationship with the new Government of Jamaica and of our stockpile program, the transportation aspects of the purchase are completely unrelated to such matters. Our investigation reveals that the failure to employ U.S.-flag ships for any part of this government impelled cargo was not due to foreign relations or national defense considerations.

The terms and conditions set by GSA for U.S.-flag carriage of the bauxite could not possibly be satisfied by any ships other than the flag of convenience ships owned by Reynolds Metals Co. In particular, the selection of the Gregory, Tex., stockpile site and the requirement that ships must discharge directly into the specialized receiving equipment at the Reynolds plant at that site, effectively precluded the participation of any U.S.-flag ships and insured that the Reynolds ships were awarded 100 percent of the cargo at a rate that was apparently considerably above the world rate of that that was apparently considerably above the world rate at that

time.

It was the selection of the Gregory site and the refusal to consider commonly used alternative methods of discharge for the Gregory site that precluded the use of U.S.-flag ships. And in this regard, we have continually questioned the reasons for these requirements, but GSA has never attempted to provide us with any answers.

Information that we have assembled as a result of our own investigation into the reasonableness and necessity of the terms and conditions set by GSA, however, indicates that: One, there exist suitable stockpile sites other than the Reynolds facility in Gregory, Tex.; two, GSA never seriously investigated the possibility of using any such other suitable sites for all or a portion of the bauxite; three, the specialized receiving equipment at the Reynolds facility is not well suited for stockpile purposes; and four, the reasons given by GSA for refusing to consider alternate methods of discharging the bauxite and moving it to the Gregory stockpile site do not appear to be supportable.

We would certainly agree with GSA that the employment of U.S.-flag ships should not dictate the location of a stockpile site. We do contend, however, that the Public Law 664 requirement that all agencies take all practicable steps to insure U.S.-flag participation in the transportation of Government impelled cargoes should be a factor taken into consideration when selecting a stockpile site. especially when several suitable sites exist. We do not believe this was done in this case, and furthermore, once the Gregory site was chosen, GSA refused to consider alternative methods of unloading

the bauxite that would permit the use of U.S.-flag ships.

Apart from the factual circumstances involved in this transaction, it is unfortunate and discouraging that one of the major shipping agencies of the Government would assume an adversarial stance vis-a-vis U.S.-flag interests. As a chartered owner of the most modern, technologically advanced dry-bulk ship in the U.S.flag fleet, it is Equity Carrier's conviction that cargo perference requirements need not lead to unduly expensive, inefficient shipping. If agencies, such as GSA, would consult with MarAd and with U.S.flag interests during the initial planning stages of transactions involving preference cargoes, realistic and workable programs can be developed that can accommodate the legitimate policy objectives of such transactions as well as the promotion of the U.S. merchant marine. So long as GSA and other agencies view U.S.-flag shipping as an adversary, however, such programs are impossible.

Thank you. I will be happy to answer any questions that you

may have.

[The statement of Thomas M. Dyer follows:]

## STATEMENT OF EQUITY CARRIERS. INC.

#### INTRODUCTION

My name is Thomas M. Dyer. I am an attorney with the law firm of Kurrus & My name is Thomas M. Lyer. I am an autorney with the law in the law in the buffer of the Star of the S

built by Levingston Shipbuilding Company in its Orange, Texas shippard and delivered in January of this year. It is the second in a three-ship series representing the

first dry-bulk vessels built in a United States shippard for operation in the foreign trade in over 30 years. These ships are the most modern, technologically advanced, fuel-efficient, dry-bulk vessels in the United States Merchant Marine. The STAR OF TEXAS was built with the assistance of Construction Differential Subsidy (CDS) and is the subject of an Operating Differential Subsidy (ODS) contract. Equity Carriers,

is the subject of an Operating Differential Subsidy (ODS) contract. Equity Carriers, however, has made an election under the new section 614 of the Merchant Marine Act, 1936, the so-called "Snyder Amendment," to suspend its ODS contract.

Since its delivery, the STAR OF TEXAS has actively pursued U.S. preference cargoes. She has completed two voyages, both of which involved the carriage of grain to Egypt, and is presently en route to Israel with a cargo of soy beans. Not only has the opportunity to carry U.S. preference cargoes provided by the Snyder Amendment proven to be a very important trading alternative, but this program has also given us the opportunity to produce substantial cost savings to the United States government As a consequence of engaging in the preference trades we have proved government. As a consequence of engaging in the preference trades, we have repaid a proportional amount of the CDS, pursuant to the provisions of the Snyder Amendment. Taking into consideration the CDS repayments, the suspension of our ODS contract, and the lower freight rates that we can offer because our operating costs are so much lower than those of the other ships in the cargo preference fleet, almost all of which are over 35 years of age, we estimate that the government would save over \$4.75 million a year as the result of continuous operation of the STAR OF TEXAS in the preference trades.

Equity Carriers thanks the Committee for the opportunity to present testimony today and wishes to express its appreciation for the interest shown by the Chairman in this matter. We fully support the efforts of the Committee to investigate the facts and circumstances involved in the failure of U.S.-flag ships to share in the transportation of the bauxite purchased for the national stockpile program.

### THE IMPORTANCE OF THIS HEARING

It should obviously be a matter of concern whenever such a large volume of cargo clearly subject to the Cargo Preference Act 1 (Public Law 664) is denied to U.S.-flag ships. In addition, however, the manner in which GSA has avoided the requirements of Public Law 664 and the open antagonism that GSA officials have displayed toward U.S.-flag shipping raise serious questions concerning not only that agency's willingness to comply with the law in the future but the potential impact that this experience will have on the future treatment of U.S.-flag shipping by other agencies as well.

An examination of the transportation arrangements made for the 1.6 million tons of Jamaican bauxite purchased by GSA in February has become even more crucial and timely in view of recent reports of the planned purchase of an additional one million tons of bauxite from Jamaica for fiscal year 1983.\* While it is too late to reverse the actions of GSA with respect to the transportation of the bauxite purchased this year, the shortfall in U.S.-flag participation resulting from these actions could be remedied, in part, by shipping 100 percent of such 1983 bauxite tonnage on U.S. flag shims U.S.-flag ships.

## THE APPLICATION OF PUBLIC LAW 664 TO THIS CARGO

There is, of course, no question that bauxite purchased by GSA for the stockpile program is subject to Public Law 664. This conclusion was communicated to Roy Markon, Commissioner, Federal Property Resources Service, GSA, by Admiral

Shear, Maritime Administrator, in a letter dated January 6, 1982.

"We have reviewed FEMA's program and find that it is clearly encompassed by Public Law. 664. We are aware that GSA is assisting FEMA in this program and therefore GSA's activities which will affect the transportation of the bauxite must

be in accordance with the law and regulation."

Based on our involvement in this matter and on information that we have been able to secure from GSA through two Freedom of Information Act requests, it is our belief that GSA's activities were not "in accordance with the law and regulation." Specifically, we are unaware of any facts that would support a finding that GSA took all "necessary and practicable" steps to insure that at least one-half of the bauxite would be transported on U.S.-flag ships.

There is no valid reason why the Jamaican bauxite purchased for the stockpile

program should be treated differently than any other government impelled cargo

<sup>&</sup>lt;sup>1</sup>Public Law 664, section 901(b), Merchant Marine Act, 1936, 46 U.S.C. § 1241(b). <sup>2</sup>"U.S. Plans To Purchase More Jamaican Bauxite," Journal of Commerce, May 3, 1982.

subject to Public Law 664. The Jamaican bauxite transaction ostensibly serves two purposes: (1) It augments our stockpile of this strategic material, and (2) it provides economic assistance to Jamaica. As policy objectives, these are certainly worthwhile, and we fully support them. In fact, throughout our involvment in the cargo preference aspects of the bauxite transaction, we made it known that we would not at-tempt to block or delay the purchase of the bauxite from the Jamaicans, despite our belief that the transportation arrangements were not consistent with Public Law 664.3 While the value of the bauxite purchase in terms of the national stockpile program and of our relations with the new government of Jamica is obvious, the transportation of the bauxite has nothing to do with these matters. We would dispute any assertion that the failure to comply with the provisions of Public Law 664 was necessitated by overriding national security of foreign relations reasons.

## THE ROLE OF REYNOLDS METALS CO. IN THE BAUXITE PURCHASE

In order to understand the basis for the transportation arrangements made for the bauxite, it is necessary to recognize the role of Reynolds Metals Company (Reynolds) in the overall purchase transaction. Notwithstanding the supportable reasons given for the purchase, the primary beneficiary of this project has been Reynolds, and to a lesser extent, Kaiser Aluminum Company (Kaiser). Both of these companies are currently suffering through a period of severely depressed conditions within

the aluminum industry.

As the Committee is aware, the bauxite is being sold to GSA by the Bauxite and Alumina Trading Company (BATCO) on behalf of the Jamaican government. BATCO is procuring the bauxite from bauxite mining subsidiaries of Reynolds and Kaiser in Jamaica. The bauxite is being stockpiled at the Reyonlds Sherwin plant in Gregory, Texas, outside of Corpus Christi. Both the preparation of the stockpile site and the handling and stockpiling of the bauxite are being undertaken by Reynolds at government expense.<sup>6</sup> According to documents provided by GSA, the amount to be paid Reynolds for the handling of the bauxite includes a built-in profit margin of 16 percent (total profit of \$753,504) in addition to two payments totalling \$288,698 (this figure includes the 16 percent profit allowance) for what is described merely as "Reynolds Supervision." GSA documents are not clear as to whether the reimbursement to Reynolds for the costs of preparing the site also includes a profit allowance. The above figures are recited not to intimate that the costs are too high or that Reynolds should not receive a profit for its services in transporting and handling the bauxite. Rather, they are offered merely to refute any possible claim by GSA or by Reynolds that Reynolds gratuitously offered its land to the government for the stockpile.

One other benefit to Reynolds under this stockpile purchase, and perhaps the major benefit, is that the entire 1.6 million tons will be carried by the flag-of-convenience ships owned by a subsidiary of Reynolds, Caribbean Steamship Company, at a favorable rate. These ships, which were idle prior to this transaction, were spe-

<sup>\*</sup>Letter of March 11, 1982, from Kurrus & Dyer to Lewis Paine, Acting Associate Administrator for Marketing and Domestic Enterprise, Maritime Administration, pages 4-5; Letter of March 11, 1982 from Equity Carriers to J. N. Habeishy, Inc., brokers for Reynolds Metals Co., page 2. [All materials cited herein, other than generally available items such as newspaper articles, have been or will be provided to the committee staff.]

\*See "Reagan's Jamsican Push Helps U.S. Industry," New York Times, Apr. 28, 1982.

\*Under the terms of "amendment No. 4" to the lease agreement between GSA and Reynolds (No. GS-OOP-22846) for the strategic stockpile area of the Sherwin facility, GSA will pay Reynolds \$196,700 as reimbursement for the costs of preparing the stockpile pad. Paragraph 15 of the agreement between BATCO and Reynolds for the handling and transportation of the bauxite (letter of Feb. 25, 1982, from Reynolds Aluminum to BATCO), provides that BATCO will pay Reynolds \$9.79 per LDT in shipping (\$6.66) and handling (\$3.13) costs. BATCO is receiving \$9.74 per LDT from GSA for these same costs (shipping: \$6.63, handling: \$3.11), pursuant to article 6 of the Feb. 25, 1982 memorandum of agreement between BATCO and GSA. The documents released by GSA do not contain an explanation for the difference in the amounts payable by GSA and by BATCO for these costs, although the Reynolds/BATCO arrangement was submitted to GSA for approval, which was presumably given.

\*The costs of constructing and relocating certain service roads to provide access to the stockpile pad (total cost: \$637,638) were included in "handling and stockpiling" services for which Reynolds is being paid by BATCO.

\*Letter of Feb. 23, 1982 from Reynolds Aluminum/Caribbean Steamship Company, S.A. to Paul Ballou, GSA.

cifically designed to interface with the unique receiving equipment at the Reynolds plant's dock. This is certainly not an insignificant benefit.<sup>8</sup>

#### THE U.S.-FLAG SOLICITATION ACTIVITIES UNDERTAKEN BY GSA

The first notice given by GSA to U.S.-flag interests that plans were being developed for the transportation of the bauxite soon to be purchased from the Jamaicans was a "Request for Expressions of Interest" issued by GSA on Monday afternoon, December 28, 1981. The request concerned the transport of 920,000 LWT of Jamaican bauxite to the Reynolds site in Gregory for a continuous period from February 1982 through September 1982. Among the various vessel requirements were: (1) Self unloading system with enclosed dust free boom discharge capable of interfacing with the specialized receiving equipment at the Reynolds facility without schedule impact on the plant's continuous receiving operations and (2) minimum discharge. impact on the plant's continuous receiving operations, and (2) minimum discharge rate of 1,400 metric tons per hour. GSA also provided that responses to its request for expressions of interest were due by 11:00 a.m. Wednesday, December 30th, less

than 48 hours after the solicitation was issued.

Since compatability with the Reynolds receiving equipment was set as a condition of eligibility to participate in the bauxite movement, Equity Carriers requested permission to inspect the Reynolds facility. This permission was denied by GSA. Nevertheless, despite the inability to secure adequate information with which to make a purposeful response, the unreasonably short response period, and the vessel and voyage requirements that could not possibly be met, Equity Carriers, along with four other owners or operators of U.S.-flag ships, submitted a response. The Equity Carriers submission listed three alternative freight indications based on the following: (1) Discharge at the Reynolds facility under the ship's existing configuration (the STAR OF TEXAS would be delivered from the ship's existing configuration that the state of the state of the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing configuration (the STAR of TEXAS would be delivered from the ship's existing the ship of t charge at a suitable berth on the Mississippi River (for other stockpile sites), and (3) discharge at the public bulk facility in Corpus Christi and trucking the bauxite to

discharge at the public bulk facility in Corpus Christi and trucking the bauxite to the stockpile site at the Reynolds Sherwin plant.

On January 6, 1982, we received information that GSA was about to award the transportation of the entire 1.6 million tons of bauxite to Reynolds. As a result of the prompt efforts and intercession of Chairman Jones, Secretary of Transportation Lewis and Admiral Shear, GSA was apparently prevailed upon to delay the arrangements for transporting the bauxite until the cargo preference matters could be resolved. In the January 6th letter cited previously, Admiral Shear notified Mr. Markon of the applicability of Public Law 664 to the proposed bauxite purchase and of the legal requirement that MarAd participate in developing the transportation arrangements. Admiral Shear also expressed the concern of MarAd that "GSA has chosen to utilize the Gregory facility exclusively when we have been informed that chosen to utilize the Gregory facility exclusively when we have been informed that there are other sites which are available and are commercially used for the storage of bauxite. These sites are compatible with U.S.-flag bulk carriers in their present

On February 11, 1982, we were informed by MarAd that Admiral Shear had met with officials of GSA the previous day in an attempt to resolve the cargo preference issues. At that meeting, GSA had refused to retreat from its decision to stockpile the entire 1.6 million tons of bauxite at the Reynolds facility and from its insistence the entire 1.6 million tons of bauxite at the Reynolds facility and from its insistence that the bauxite be discharged directly into the receiving equipment at that facility. GSA did, however, acknowledge that the bauxite is subject to Public Law 664. In consideration thereof, GSA agreed to include a "reasonable premium" in the rate paid to any U.S.-flag ship determined to be available as reimbursement for the costs of adapting such ship to permit it to interface with the Reynolds unique receiving equipment. GSA also "agreed" to permit MarAd to review the solicitation to be issued for the U.S.-flag carriage and the determination whether U.S.-flag ships responding to that solicitation would be considered "available" under Public Law 664. On February 25, 1982 a solicitation for U.S.-flag ships to carry 920,000 LWT of the Jamaican bauxite was issued by J. N. Habeishy, Inc., as brokers for Reynolds. Under the terms of the GSA/BATCO/Reynolds agreements, Reynolds was given the responsibility for the transportation of the bauxite, including offering 50 percent thereof to U.S.-flag ships pursuant to Public Law 664.

world market rate.

The memorandum of agreement between GSA and BATCO provides for purchase on a C. & F. basis. BATCO, in turn, subcontracts the shipping and handling of the bauxite to Reynolds

<sup>\*</sup>Reynolds is receiving \$6.66 per LDT (the shipping component of the \$9.79 shipping/handling rate) for the carriage of the bauxite. Our information is that the world rate during January/February of this year for such shipments was \$4.00 to \$4.50 per LDT. This would indicate that Reynolds received an aggregate shipping premium in the area of \$4 million or more above the

The terms of this solicitation were substantially identical to those contained in the earlier GSA request for expressions of interest. There were, however, two new factors that made meeting the requirements set therein even more difficult than for the previous solicitation. First, the shipping period was set to begin March 15, 1982. Responses to the February 25th solicitation were due by March 11th to remain valid for reply by March 15th. Even if a vessel could be so adapted at a reasonable cost, 10 and if such an adaption could permit discharge at a minimum rate of 1,400 tons per hour,11 it certainly could not be done in the time frame established by the solicitation.

Second, the solicitation required that offers be submitted on the basis of a "Proforma" Reynolds Charter Party developed by Reynolds for this particular cargo movement. No rational or prudent business person would ever agree to such a charter party in an arms length transaction. Among the terms and conditions set in

it was the following:

"Owners guarantee and must satisfy Receivers that vessel's discharging gear and equipment are in every way suitable to fit into Receivers' receiving equipment/hopper as stated below, and that vessel must be compatible of interfacing with Charterers/Receivers' plants continuous receiving operation, and that vessel's gear is able to self-discharge cargo thereinto at a minimum rate of 1,400 metric tons per hour, twenty-four (24) hours per day around the clock, Saturdays, Sundays and Holidays included, with all prudence and diligence avoiding all possible or potential damage to said Receivers' equipment irrespective of weather conditions and complying with all pollution and environmental regulations."

The shipowner would also be required to provide Reynolds with a \$500,000 bond to support this guarantee and to cover any damages "including but not limited to, all consequential damages." (Clause 41).

Despite the obvious fact that no vessel, foreign or U.S.-flag, other than the Revnolds bauxite carriers could meet the conditions set by the solicitation and by the proposed "Proforma" agreement, Equity Carriers submitted a response to the solicitation. That response proposed several alternatives to the transportation arrangements required under the solicitation. The alternatives were necessarily preliminary and negotiable. Nevertheless, they were proposed in good faith and were meant to make a U.S.-flag ship available at the lowest cost to the government and in a manner consistent with the legitimate requirements and objectives of the national stockpile program.

Equity Carriers' proposals were rejected, and GSA determined that U.S.-flag ships were not "available" under the terms of Public Law 664.

THE INABILITY OF U.S.-FLAG SHIPS TO PARTICIPATE IN THE BAUXITE MOVEMENT WAS DUE ENTIRELY TO THE RESTRICTIVE SPECIFICATIONS SET BY GSA IN ITS SOLICITATIONS

In a letter to Mr. Markon dated March 24, 1982, Admiral Shear reviewed GSA's determination of the non-availability of U.S.-flag vessels and made the following points:

"Consequently, it must be noted that a U.S.-flag vessel or vessels are available for the transport of the bauxite from Jamaica, if other conventional ports of discharge

were utilized.

"The GSA requirement that the bauxite be totally discharged at Gregory, creates a restriction solely due to the unique discharging facility at Gregory only able to accept specially fitted vessels, which fitting requirement cannot be accomplished within the time frame required. We understand that it would take upwards to a year's time to produce and install compatible equipment, whereas U.S.-flag vessel operators have had less than one month's firm notice of this requirement.

"Thus, the selection of the storage site by GSA has effectively precluded the participation of U.S.-flag vessels in the carriage of this cargo. In this respect, we consider this an unfortunate selection, which we trust will not be repeated in the future.

We certainly agree with Admiral Shear that U.S.-flag ships could not possibly satisfy the requirements set by GSA.

<sup>&</sup>lt;sup>10</sup> Our investigation into the possibility of adapting the STAR OF TEXAS revealed that even if such an adaption were technologically feasible, the cost would be at least \$1 million.
<sup>11</sup> There is no way that an existing vessel can achieve such a rate by the addition of discharge equipment. The Reynolds ships are the only ships that could possibly discharge at that rate.

# QUESTIONS CONCERNING THE REASONABLENESS AND NECESSITY OF THE RESTRICTIVE SPECIFICATIONS SET BY GSA

It is a fundamental principle of government contracts law that bid solicitations may not contain unreasonable or unduly restrictive specifications having the effect, either intentional or not, of eliminating or reducing competition. In addition, P.L. 664 requires that all government agencies take such steps as may be necessary and practicable to assure that at least 50 percent of government impelled cargoes are carried on U.S.-flag vessels. In view of these principles, we have questioned throughout our involvement in this matter the basis for, among other things, the specifications requiring that (1) the Reynolds Sherwin plant be the sole stockpile site, and (2) ships transporting the bauxite discharge directly into the Reynolds specialized receiving equipment at a minimum rate of 1,400 tons per hour. We were never given any explanation for such specifications. The results of our own investigation, however, which are discussed in part below, uncovered no evidence that these specifications were based on any factors or considerations dictated by legitimate policy objectives of the national stockpile program or of our relations with the Jamaican government.

# 1. Other suitable stockpile sites exist

The economic consulting firm of Temple, Barker & Sloan, Inc. has prepared a report, which we are submitting to the Committee with this testimony, on bauxite receiving and storage facilities in the United States. As that report indicates, six of the seven bauxite processing plants in the continental United States that utilize imported bauxite are located close to deepwater discharge terminals. Of the seven plants, four of the terminals used by the plants regularly handle Jamaican bauxite and others have handled Jamaican bauxite on an infrequent basis either for the stockpile program or for commercial purposes. Further, of the seven facilities utilizing imported bauxite, only the Reynolds Sherwin plant has receiving equipment requiring self-unloading, specialized bauxite ships. The others successfully utilize standard, crane-mounted grab bucket discharge systems and can accommodate U.S.-flag ships.

Additional bauxite stockpile capacity is available at several locations including the Kaiser plant at Gramercy, Louisiana, the Ormet Corporation plant at Burnside, Louisiana and the Federal stockpile areas near Mobile, Alabama. All of these locations meet the condition imposed by GSA 12 that the stockpile sites must be "in rea-

sonable proximity" to bauxite processing plants.13

2. GSA never seriously investigated stockpiling the bauxite at any site other than the Reynolds Gregory facility.

The documents provided to us by GSA, which are described by GSA as consisting of copies of all correspondence between GSA and private interests concerning the acquistion and stockpiling of the 1.6 million tons of Jamican bauxite, are devoid of any evidence that GSA seriously investigated the possibility of stockpiling the bauxite at any site other than the Reynolds Sherwin plant. The documents include a letter from Kaiser to GSA dated November 4, 1981 enclosing data concerning the existing national stockpile at the Kaiser Gramercy facility. It is not possible to ascertain from the letter whether the data was being supplied in connection with a review of possible sites for the proposed Jamaican bauxite purchase. In any event, there is no evidence of any subsequent correspondence between GSA and Kaiser concerning the facility. GSA did, however, released to us a copy of a letter dated January 6, 1982 from Kaiser to the Bureau of Mines in which Kaiser indicated that the Gramercy stockpile site has an estimated additional capacity of five to six million tons.

In a document dated February 24, 1982 setting forth "Findings and Determinations" and signed by Roy Markon, it is stated that GSA had considered the possibility of splitting the storage of the bauxite between the Reynolds facility in Gregory and the Kasier facility in Gramercy. GSA had determined that bauxite could be stored on top of the existing pile at the Gramercy site. Nevertheless, GSA decided not to split the storage between the two plants because, according to the document, it would "result in an unjustified and expensive duplication of material handling costs." This "expensive duplication" was estimated to involve nearly \$3 million in additional costs. In view of this assertion, in a March 24, 1982 letter to Mr. Markon, we requested copies of all materials containing information or data used by GSA in

<sup>&</sup>lt;sup>12</sup> See "Findings and Determinations" by GSA (Roy Markon), February 24, 1982.
<sup>13</sup> The Federal stockpiles in the Mobile area are near the Mobile plant of Aluminum Company of America (Alcoa).

developing this estimate of \$3 million in net additional costs. Curiously, however, Mr. Markon responded in a letter dated April 12, 1982 that no such materials exist.

In addition to the fact that GSA was not able to identify for us any data or information supporting the determination that splitting the storage between the Gregory and Gramercy sites would be prohibitively expensive, that determination seems, on its face, to be of questionable validity. The only fixed costs involved in handling the bauxite, i.e., those costs that would be duplicated, are the costs of preparing the stockpile pad, including the costruction of service roads, as well as certain costs for weighing equipment and other incidental items. Since the new bauxite at the Gramercy site would have been added on top of the existing pile, however, such pad preparation and other fixed handling costs would have been minimal for that site. The other handling costs, primarily the costs of trucking the bauxite to the stockpile, should be roughly equivalent whether the bauxite is stored at Gregory or at Gramercy. Consequently it does not appear that added handling costs should be of such a magnitude to rule out Gramercy as a stockpile site, and it is difficult to understand how they could amount to \$3 million.

3. Discharge into the specialized receiving equipment at the Reynolds facility is not required for stockpile purposes

The receiving equipment is particularly unsuited for the unloading of bauxite destined for the stockpile. The design of the enclosed hopper/conveyor system at the Reynolds plant is not due to environmental restrictions, although the system does provide one method of controlling the fugitive dust emissions incidental to handling Jamaican bauxite. Nor is its function merely to move bauxite from the dock to the plant. Rather, the system is an integrated part of the bauxite/alumina refining process employed at the plant. That process requires dry bauxite 14, and the receiving equipment developed by Reynolds is not only designed to accommodate dry bauxite but actually dries the bauxite as it is moved through the conveyor system. The bauxite purchased by GSA, however, is intended to be stockpiled and not immediately processed. As a result, under the present handling arrangements, the bauxite is removed from the receiving system at some point and is then placed on trucks for the approximately two mile trip to the stockpile site. Water is added to the bauxite when it is loaded into the trucks in order to control the dust problems. This exercise of requiring dry bauxite, drying it further, and then subsequently moistening it seems rather ludicrous and would appear to involve unnecessary costs.

4. GSA has offered no credible explanation for its refusal to allow bauxite to be dis-charged at the public bulk terminal in Corpus Christi

Since the particular receiving equipment at the Reynolds plant imposes restrictions as to the quality of the bauxite that are unrelated to stockpile matters, we have questioned the steadfast refusal of GSA to consider proposals made by Equity Carriers, as well as by other U.S. flag operators, to discharge bauxite at the public bulk materials dock in Corpus Christi and then truck it to the stockpile site at Gregory. It is our understanding that the reason given by GSA for summarily rejecting this option was that the Port of Corpus Christi would not permit it due to environmental restrictions applicable to the dust emissions incident to the unloading and trucking of the material. We have been able to find no facts that would support this assertion. What information we do have leads to a contrary conclusion. Port officials at Corpus Christi advised us that not only did they not see a problem with unloading the bauxite at the public facility, but they would be anxious to get this business for that facility. Moreover, Jamacian bauxite transported to bauxite refinery plants

dling purposes and does not affect the material useability in an emergency. I understand that GSA will cover considerations of free moisture content as part of their contractual arrange-

ments for procurement.

<sup>&</sup>lt;sup>14</sup> According to GSA documents, the specialized ship unloading and shoreside receiving system developed by Reynolds requires dry, dusty bauxite. As a result, a free moisture limitation is included as part of the contractual procurement arrangements. This moisture limitation is unrelated to stockpile considerations. According to a Jan. 29, 1982 letter from Paul Krueger, Federal Emergency Management Agency (FEMA) to Roy Markon:

"It was determined that the free moisture content limitation is required for shipping and handled the state of the s

ments for procurement."

This letter was in response to a Jan. 21, 1982 letter to FEMA from Mr. Markon on which Mr. Markon stated that the limit on free moisture content is "for the purpose of allowing the mechanized ship unloading and is unrelated to the specification for bauxite."

Our information, however, is that the 17 percent free moisture limitation contained in the BATCO/Reynolds agreement does not result in particularly dry bauxite. In fact, bauxite with a 17 percent feee moisture content has the consistency of mud. Since we cannot explain this discrepancy, we will adopt GSA's characterization of the bauxite as dry and dusty when it leaves largestee. Jamaica.

other than the Reynolds Sherwin plant is unloaded with conventional grab bucket or clam shell-type equipment. Finally, and most importantly, carriage of bauxite in trucks is already a feature of the present bauxite handling at the Gregory site. Reynolds is obviously able to truck bauxite notwithstanding the serious environmental problems that GSA and Reynolds assert are associated with Jamacian bauxite.

#### CONCLUSIONS CONCERNING GSA'S COMPLIANCE WITH PUBLIC LAW 664

Perhaps, as a result of this hearing GSA will provide information demonstrating that the particular terms and conditions established for the transportation of the bauxite that have had the effect of precluding U.S. flag vessels from participating in this cargo movement are due to overriding considerations fundamental to the policy objectives of the national stockpile program. We have continually requested such information in order that we could develop proposals accommodating such consider-

ations. GSA has never attempted to provide such information.

Nevertheless, it remains clear that it was the designation of the Gregory stockpile site and, more specifically, the specialized receiving system at the Reynolds plant that effectively precluded the use of U.S.flag ships. This fact, plus GSA's unwillingness or inability to adequately justify this selection, the negative attitude expressed by GSA toward U.S.-flag shipping interests, and evidence that other stockpile sites or other terminal facilities near the Gregory stockpile site were available but were not seriously considered even after suggestions by us, can only lead to a conclusion that GSA never intended to give U.S.-flag ships a genuine opportunity to participate

in the carriage of this bauxite.

in the carriage of this bauxite.

This conclusion would appear to be supported by GSA's aborted attempt to arrange an indirect purchase scheme designed solely to avoid the requirements of Public Law 664. In a letter dated January 20, 1982 from Reynolds to GSA, Reynolds proposed an arrangement under which "Reynolds will sell its own material in the United States to the Jamaican Government for resale to GSA and Reynolds will commit to purchase replacement bauxite from Jamaican sources." It was stated in the letter that the proposal was being made at the request of GSA and the Government of Jamaica and that the request "grows out of your belief that commencement of the direct purchase . . . will be delayed pending resolution of the question whether any of the bauxite must be moved from Jamaica on United States-flag vessels." The letter also contains a most telling admission by Reynolds of its primary concern throughout this matter. "Our proposal assumes that GSA will act vigorously to resolve the shipping question and that Reynolds will not be hampered in shipping its replacement bauxite aboard its controlled foreign-flag vessels."

### STEPS TO REMEDY THE SHORTFALL IN U.S.-FLAG PARTICIPATION IN THE BAUXITE **PURCHASE**

We would certainly agree with GSA that the employment of U.S. flag ships should not dictate, by itself, the location of a stockpile site. We do contend, however, that the Public Law 664 requirement that all agencies take all practicable steps to insure U.S. flag participation in the transportation of government impelled cargoes should be a factor taken into consideration when selecting a stockpile site, particularly when several suitable sites exist. Barring a conflict with overriding national security consideration, the site selected must be one permitting compliance with the pro-

visions of Public Law 664.

Despite our fears concerning the attitude of GSA with respect to the cargo preference laws and U.S.-flag shipping, we are encouraged by indications that GSA is apparently willing to ship future cargoes on U.S.-flag ships to the maximum extent possible in order to compensate for the lack of U.S.-flag participation in the present purchase of the 1.6 million tons of Jamaican bauxite. In the March 24th letter to Mr. Markon, Admiral Shear confirmed an assurance given by Mr. Markon that "GSA will include MarAd in their future planning process, so that MarAd will be "GSA will sactude MarAd in their future planning process, so that MarAd will be aware of acquisitions which are being planned long in advance of any purchase commitment." Admiral Shear then concluded that "such an approach would not only assist in insuring that the U.S.-flag requirement is met in the future, but would facilitate the make up on the shortfall in this current bauxite purchase." We hope that, as a result of this hearing, the apparent commitment by GSA to "make up" the shortfall in U.S.-flag carriage of this preference cargo will be clarified and further developed.

The proposed purchase of 1 million tons of Jamaican bauxite for fiscal year 1983 presents a timely opportunity for making up 500,000 tons of the 800,000 LDT shortfall by shipping 100 percent of such bauxite on U.S.-flag ships. We can conceive of no impediment to such a step. The Gregory site is the only stockpile site that cannot

be serviced by U.S.-flag ships, and it seems unlikely that any additional bauxite will be stockpiled at that site. Not only has Admiral Shear notified GSA of MarAd's conbe stockpiled at that site. Not only has Admiral Shear notified GSA of MarAd's concern that the selection of Gregory will not be repeated in the future, but, according to documents provided in GSA, the present 1.6 million ton purchase has exhausted that site's stockpile capacity. It therefore appears that any additional bauxite purchased for the stockpile program would be taken to one of the other stockpile sites, any of which can accommodate existing U.S.-flag bulk carriers. We look forward to participating in the procurement of U.S.-flag ships to transport such bauxite.

On behalf of Equity Carriers, I thank the Committee for this opportunity to testify and I would be harmy to apswer any questions that the Committee may have

tify, and I would be happy to answer any questions that the Committee may have.

The Chairman. Thank you, Mr. Dyer.

Do you sort of get the feeling maybe that Reynolds got preferen-

tial treatment here?

Mr. Dyer. Well, Mr. Chairman, we have definitely had that feeling throughout all of our dealings with everyone involved in this project.

The CHAIRMAN. Did a representative of Equity seek to meet with

GSA officials to discuss U.S.-flag transportation?

Mr. Dyer. Yes; we did.

The CHAIRMAN. What was the reaction?

Mr. Dyer. Our first request was when the initial request for proposals came out. We were quite startled to hear of the peculiar requirements for discharge. We asked for permission to visit the site in Texas so we could learn a little bit more about it, because it had been our experience this is not a conventional way for offloading bauxite. At that time we were refused permission to visit the site. Later my associate, Mr. Kirchner, requested permission to meet with GSA and offered to meet with them at that time to discuss the possible participation by U.S.-flag interest, and once again we were told that a meeting was not necessary.

The CHAIRMAN. There was intervention with GSA, the environment, inadequate port facilities, none of which added up to me. Hopefully the next round, if Seaga is correct, the American Merchant Marine will fare a little better as a result of these hearings.

Our next witness is Mr. Alan Jones, president of the Antares

Chartering & Shipping Corp.

# STATEMENT OF ALAN JONES, PRESIDENT, ANTARES CHARTERING & SHIPPING CORP., NEW YORK, N.Y.

Mr. Alan Jones. On behalf of my client, New York Navigation, who had full intention of taking the ship Austral Moon into the time charter, and who has 25 years of experience with transportation of bulk commodities, I had put forward a bid when the GSA came out with their expression of interest, and also responded to their tender in February.

I will read my prepared statement now.

Antares Chartering thanks the committee for the opportunity to present testimony today. We fully support the efforts of the committee to investigate the facts and circumstances involved in the failure of U.S.-flag ships to participate in the transportation of the 1.6 million tons of Jamaican bauxite purchased by GSA for the national stockpile program.

Our statement clearly shows that legitimate questions were put up to MarAd. However, there was not even the courtesy of an ac-

knowledgment of receipt received.

Tendering of the cargo with the prerequisite specifying a discharging system to be utilized which, through our investigation. only one company, Reynolds, employs this design in their own equipment at Gregory, Tex. It only reinforced our belief that the GSA had no intention to consider any other ships to participate except the Reynolds ships in the carriage.

The sale was concluded on a cost and freight basis, meaning it is the seller's obligations to transport the bauxite to the buyer's custody, in this case, Gregory, Tex., at no additional cost to the buyer. Both the terms of sale and Reynolds, not GSA, issuances of the freight tender, it is our opinion there has been a serious violation of

the cargo preference law.

Three American carriers—States Steamship, PFEL, and Seatrain-so far have gone out of business. Three more presently-Farrell, Prudential, American Atlantic—are receiving funds from MarAd to meet mortgage and interest payments. Delta lines is up for sale. If there was ever a time when American flag lines needed support from U.S. Government generated cargoes, the time is now.

Thank you. I will take any questions. [The statement of Alan Jones follows:]

STATEMENT OF ALAN B. JONES, PRESIDENT, ANTARES CHARTERING & SHIPPING CORP.

Antares Chartering & Shipping, Inc., New York, Alan B. Jones, acting as brokers, for New York Navigation Corp., New York, did, on December 30, 1981, respond to G.S.A.'s request of Dec. 28th for expression of American Flag interest to lift 920,000

ong tons of Jamaican Bauxite, offering the vessel Austral Moon.

Meeting with MARAD Feb. 11, 1982, our representative was informed that the sale was to be concluded on a "cost & freight basis" with Jamaica about Feb. 17-20 with the provision that only the Reynolds' Gregory, Texas, facility would be considered for discharging and stockpiling of the bauxite. This facility, owned and operated by Reynolds, set standards concerning discharge that existing U.S. Flag tonnages could not meet, and the outfitting of a U.S. Flag vessel, if time permitted, would be

On Feb. 22, a meeting was arranged with the North Carolina State Ports Authority and MARAD/GSA to explore the use of their Moorehead City facility to accept the discharge of the bauxite by clamshell discharge and the availability of areas to stockpile it. Both MARAD and GSA refused to discuss a possible change of dis-

charge port.

A firm offer of the vessel Austral Moon was tendered on March 11, 1982, offering discharge at Gramercy, La., or any other suitable U.S. Gulf Port, in response to Reynolds' tender of Feb. 25. The offer was held firm through the close of business on

March 15. Finally, on April 2, 1982, we were informed:
"We have been informed that GSA has concluded their coordination with the Maritime Administration concerning the offers submitted by U.S.A. flag vessels and determined that U.S.A. flag ships are not available for the bauxite shipment in accordance with the tender as published."—J. N. Habeishy, Inc., as brokers.

Our reply of April 5, 1982:

"Re GSA Jamaican bauxite

"Reference to your telex April 2 informing U.S. flag ships are not available in accordance with the tender, we strongly protest that the tender was published not in accordance with the cargo preference law.

We ask to go on record here as requesting a formal reply to the following two telexes we sent to Adm. Harold E. Shear, MARAD, for which no response has been

received to date.

Telex dated March 23, 1982, subject: 1.6 M tons bauxite, Jamaica/Gregory TX.
"With the 50 pct Amer flag preference established, several points we would like to

have addressed.
"1. Reason for the hopper at Gregory, TX. inability to accept clamshell discharge as this is a standard practice at Gramercy, LA. and acceptable operation at Moorehead City, N.C. as discussed in your meeting with Wm. Greene.

"2. The purchase of the bauxite was concluded with Reynolds on a "cost and freight" sale which in effect turned the routing of the cargo over to the seller, pre-

senting a clear detriment to the enforcement of the cargo preference law.

"3. Our tender of the Austral Moon for this business, currently in idle status with MARAD presently advancing considerable funds for this vessel to meet mortgage and interest payments; utilization of the Austral Moon for this movement would afford the owners to meet their obligations.

"4. The choice of a private facility over a public port authority facility especially at a time oceanborne commerce in all U.S. ports has declined raises the question if

"5. If waiving the U.S. portion is to come, it would seem, even though one agency would be saving, other sectors of the Government would be realizing considerable expenditures such as the point 3 above. Also loss of a tax base from ocean freight and employment incomes.

"Your kind attention is appreciated."

Telex dated March 29, 1982, subject: GSA's Jamaican bauxite purchase.

"It may be in order to point out using the Gregory, Tex. facility to stockpile the current purchase of bauxite which will be added to the existing stockpiles already on the facility would seem to be "putting all your eggs in one basket." This seems not to be a sound military practice. Also placing the dependence on one commercial company for the keeping and refining of the product would leave open to question our competitive bidding system. It would seem neither good business procedures or commonsense has been practiced in the conclusion of this purchase."

To sum up, the GSA's choice of Reynolds' Gregory, Texas, facility as the discharge and stockpiling area was either done by design or with no regard for existing American Flag vessels that could be compatible with the Reynolds' unloading equipment. Specifying this facility has effectively eliminated any American flag participa-

The American Flag vessel Austral Moon built 1973. In idle status since January in San Francisco, was available and able to lift 37,000 tons of bauxite per voyage. With shore cranes and clamshell buckets at discharge port, such as the Kaiser facility at Gramercy, Louisiana, and the Moorehead City facility where bauxite has been handled, this vessel would have had the opportunity to bid on the transportation of molecular to the vessel for 7 to 8 months and offering much peeded iche for American employing the vessel for 7 to 8 months and offering much needed jobs for American seamen.

If American Flag vessels are not to be allowed to particiapte in U.S. Government finance/generated cargoes, it could well be the final nail in the coffin of the Ameri-

can Merchant Marine.

The Chairman. Did representatives of your organization seek to

meet with GSA officials to discuss U.S.-flag transportation?

Mr. Alan Jones. I tried to call them on several occasions-Mr. Roy Markon. I did speak with one gentleman—I don't have his name in front of me. I can get it. All he did was expound upon how much money GSA was saving the U.S. taxpayer on the purchase. That is about as far as I was able to get with GSA.

The CHAIRMAN. Does counsel have any questions?
Mr. Long. Thank you, Mr. Chairman. First of all, to your knowledge, have any of the carriers that you gentlemen represent, New York navigation or equity carriers, ever transported bauxite in par-

ticular? I know they are bulk carriers.

Mr. Alan Jones. I can answer on behalf of New York navigation. They have dealt for over 25 years mainly in project cargoes. They are charterers of vessels, mostly foreign-flag vessels. I would assume somewhere along the way they did carry bauxite at one time or another.

Mr. Dyen. With Equity Carriers, the Star of Texas is a new vessel. She was only delivered in January and has been inked in

the carriage of food cargoes up to this point.

The CHAIRMAN. One last quick question for Equity Carriers. Mr. Dyer, in your statement you said that the specialized receiving equipment at the Reynolds facility was not well suited for stockpile purposes. Would you elaborate on that a little bit? Why is it not well suited for stockpile purposes, and what are the problems?

Mr. Dyer. We had several experts investigate the matter down in Gregory. We have been told that this peculiar discharge facility is there primarily because it interfaces with the Reynolds processing facility, that it enables them to almost immediately go into the processing of bauxite. It is not there to offload ships for stockpile purposes. So what is actually happening in this case is they are taking it through this discharge unit. They are taking it out of it. They are wetting it down as we have been told to then move it between a mile and two miles over to their storage site. Environmentally, we looked into it. We were told it was an environmental problem. Sure, this facility does help reduce the amount of fugitive dust. But it wasn't set up primarily for that reason as far as we can tell.

We talked to the Texas Air Control Board, we have looked into Federal regulations, we searched everywhere to find some environmental reason why that facility had to be used. And we could find no regulation or requirement necessitating the use of that facility.

Mr. Seifert. The discharge requirements which were contained in the solicitation, were they such that anyone in the world could have responded to it successfully outside of the Caribbean trade?

Mr. Dyer. To our knowledge, no, it would be impossible. I personally was on the phone with equipment handling manufacturers in Scandinavia, and we looked into every possible type of equipment to put into a vessel to discharge bauxite. Bauxite is not like alumina. Alumina can be discharged with a pneumatic system, a variety of systems. Bauxite, because it is wet, and the type of cargo that it is, it is traditionally discharged with grabs. They just reach down into the holds and put it out, worldwide. When we called around and asked people to quote us equipment to discharge bauxite, automatic handling equipment, they would not quote it, or said, we will quote you some equipment that we use for alumina and other types of materials, but we will not guarantee that it will discharge bauxite. We are aware of no other vessels in the world that are capable of interfacing with that equipment.

Mr. Seifert. If the specifics were loosened a bit, are there any vessels that could have gone into Gregory, so far as discharge—if you relaxed just discharge rate, and if you discharged by the

method used by the Reynolds vessels?

Mr. Dyer. Well, we could have discharged at Corpus for sure.

Mr. Seifert. I am talking about in Gregory.

Mr. Dyer. If you pull up to the pier—I am not familiar with the actual pier arrangement. I don't know if we could have pulled in and just discharged onto barges. But to come up with grabs, all you need is a barge to tie up between you and the pier and you tie up outboard of the barge and the grabs will put the cargo right out. But I haven't been down there myself. I would not want to represent there is enough pier space to do that.

Mr. Seifert. Are you generally familiar with GSA procurement contract types other than the one you have seen in this particular

transaction?

Mr. Dyer. No, sir.

Mr. Seifert. Then you could not answer whether this is an unusual form of request for bid?

Mr. Dyer. No, sir, I could not comment on that.

Mr. Seifert. Thank you.

The Chairman. Thank you, gentlemen, very much.

Next, Mr. Frank Drozak, Maritime Trades Department, AFL-CIO.

STATEMENT OF FRANK DROZAK, PRESIDENT, MARITIME TRADES DEPARTMENT, SEAFARERS INTERNATIONAL UNION, AFL-CIO, WASHINGTON, D.C.

Mr. Drozak. Thank you, Mr. Chairman. I appreciate again the opportunity to appear before your committee. It seems it is an everyday occasion as things continue to go from bad to worse.

The CHAIRMAN. Glad to have you.

Mr. Drozak. Mr. Chairman, I have a statement I want to read and I would like permission after the statement to make a couple of comments.

The CHAIRMAN. Without objection, so ordered.

Mr. Drozak. Thank you.

We are especially concerned that U.S.-flag service is not being

used to transport this Government-impelled cargo.

It has been reported that this committee is interested in finding the answers to three questions. First, was this purchase necessary? Second, why weren't competitive practices followed? And, third, why were American ships excluded from the movement of this cargo?

It's difficult to answer the first question without asking a much larger one. Does the Reagan administration really have a comprehensive defense and foreign policy? Or is its policy—as some critics have suggested—to reward its friends and punish its enemies, ignoring the rest of us in the meanwhile? Certainly, this bauxite deal

looks very much like a rewarding of friends.

My organization has been pointing out the strategic mineral problem for a long time. More than 4 billion tons of raw materials are needed each year to sustain the U.S. economy. The Defense Department keeps a list of 71 materials which are vital to our national security. Sixty-eight of the materials on that list are imported, in whole or in part. Often they come from the world's most unstable areas. If—for any reason—these materials should fail to get from the source to the United States, we would be in very serious trouble.

There is a very real resource war going on in the world. The United States and its allies are very vulnerable in this crucial area. By contrast, the Congressional Research Service has estimated that the Soviets have more nonfuel minerals than any other country. Of the critical minerals and metals, they import only seven.

Is bauxite one of those vital materials? Yes it is. Of course, there are a number of materials that are more critical. Nevertheless, bauxite is the major ore in aluminum. And aluminum is important in virtually all segments of the American economy. According to the U.S. Bureau of Mines, the United States imported 91 percent of

its bauxite in 1977. The Common Market countries imported 97 percent. And Japan imported 100 percent. Clearly, a vital depend-

ence exists.

Was the purchase necessary? The answer depends on how you define the world "necessary." We don't have any quarrel with the administration's decision to add to the stockpile for the first time in 20 years. This action might be long overdue. Nor do we have any quarrel with the administration's desire to support a friendly government in a troubled country. But, is this action an isolated one? The May 3 Journal of Commerce announced a second purchase, to take place this fall. Do we plan to start adding other materials to the stockpile? If so, is there a long-term plan? We would like to know if there is such a plan. It would enable U.S.-flag operators to purchase the ships necessary to carry these vital cargoes.

[The statement of Frank Drozak follows:]

STATEMENT OF FRANK DROZAK, PRESIDENT, SEAFARERS INTERNATIONAL UNION OF NORTH AMERICA

Mr. Chairman and members of the committee, my name is Frank Drozak. I am President of the Seafarers International Union. I am also President of the AFL-CIO Maritime Trades Department, representing eight and a half million workers in forty-four allied trades. We appreciate this opportunity to share our views on the recent purchase of Jamaican bauxite for the U.S. stockpile. We are especially concerned that U.S.-flag service is not being used to transport this government-impelled

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Mr. Drozak. If this was an isolated purchase, then the administration is clearly using national security to justify rewarding friends. If it was not part of a larger plan, then we, too, question whether it was necessary.

We are told that it was part of a larger plan for the area, the socalled Caribbean Basin Initiative. Rules are being bent to make Jamaica the showplace for the administration's ideas concerning

what they call the magic of the marketplace.

Mr. Chairman, we are frankly amazed that this defense-minded administration could work out its promotional program for Jamaica before it could get to step one of its U.S. maritime promotional program. Somebody's got the cart before the horse. While they build up Jamaica, the "magic of the marketplace" is killing us here at home.

Under this administration, the U.S.-flag mechant fleet has declined to an all-time low. Our very small dry bulk fleet continues to

shrink.

And one of the key reasons for this is the bending of the rules by Government agencies. With fewer than 20 dry bulk ships in the U.S.-flag fleet, it can be fairly simple for an agency to get around the cargo preference laws. Anyone looking at the way the General Services Administration went about this business can see that they had no intention of using U.S.-flag service. The details of their original request favored a single\_company and a single site. The time given to respond to their request was absurdly short.

The Maritime Administration was brought into the matter too late to be helpful. On December 22, 1981, GSA and Marad staff met to discuss GSA's intention to use a single site in Gregory, Tex., to store the bauxite, In a followup letter, the Maritime Administrator questioned this decision. He pointed out that other sites were avail-

able that are compatible with U.S. flag bulk ships.

Less than a week after the December 22 meeting, GSA put out the formal request for U.S.-flag ships that is required by law. It al-

lowed less than two days for operators to respond.

Under pressure from the Maritime Administration, a second request for ships went out. However, since the Gregory, Tex., site had been chosen, and since that site requires a self-unloading vessel, no U.S.-flag ships were available for the work. The narrow selection of a single site thus led to our exclusion from this business. We agree with Admiral Shear in his March 26 letter to GSA that it was not necessary to limit the stockpiling of this bauxite to a single site.

After the deal was already completed, GSA admitted that it did not consult with Marad in the advance planning stages. It has agreed that in the future it will do so. In other words, now that the horse is out of the barn, they're willing to help shut the doors.

Mr. Chairman, this is outrageous. Year after year we have watched as Government agencies skip out from under the cargo preference laws. Time after time, they get away with nothing more

serious than a slap on the wrist.

As you well know, these are troubled times for the U.S. maritime industry. This is especially true of our dry bulk fleet for which things continue to go from based to worse. The administration's promotional plan is nowhere in sight. Congressman Gene Snyder has offered one of the most positive plans we've seen in years in his dry bulk amendment to H.R. 4627. But the administration recently went on record as opposing this proposal.

We seriously doubt that this administration is ever going to address the U.S. Merchant Marine with the kind of energy it has shown for the Caribbean Basin. Until they do, they cannot claim to have a complete defensive plan. In any case, they could and they should—carry out their stated commitment to the existing cargo preference programs.

Accordingly, we would urge this committee to ask the President to make his views known to all Government agencies involved in shipping cargoes. A clear statement of support from the President should make the agencies listen. We are especially eager to see that the next purchase of Jamaican bauxite be moved on U.S.-flag

ships.

We would further urge this committee to ask the President to instruct the executive agencies to involve the Maritime Administration in the earliest stages of planning for future shipping needs.

Eleventh-hour involvement has little use.

Finally, we would urge this committee to consider putting some teeth into the cargo preference laws. As things stand, there is no serious penalty for an agency's failure to comply with the law. We are not certain what form such penalties should take. One method has been included in a Merchant Marine and Fisheries staff draft of a proposed "Government-Impelled Cargo Act." The proposed draft has merit. In any case, without some kind of penalty, situations like the matter before you will continue to exist.

Thank you very much.

Mr. Chairman, as a sailor who started at sea in 1944—I raise the issue in question because of what has been said here today. I happened to have sailed for 10 years, Mr. Chairman, on ships that carried bauxite out of Jamaica and out of Trinidad into Mobile and New Orleans. Four of those ships, Mr. Chairman, happened to be combination cargo-passenger ships.

They carried 100 passengers through the islands and then re-

turned to Trinidad where they took on a full load of bauxite and brought it into Mobile and discharged it. So I dispute the question of the Government Agency, GSA, sitting here and saying that there are environmental problems and dust problems that cannot

be handled on any type of ship.

Mr. Chairman, they were Victory ships and they were these type combination ships. We did not have bulk ships during that period of time. And even today, we could have found a U.S.-flag vessel to deliver that bauxite, had we been given a chance. It's just like everything else, if you want to cut a deal with somebody, there is always a way to get around the law until the law catches up with

I am from Alabama and I know a little bit about that. I certainly think that we have been handed a hell of a bad deal by this administration on the movement of this bauxite purchased by the Defense Department, with a deal cut with Jamaica and also with

Reynolds Metals.

I would further request, Mr. Chairman, that we look into the subsidiaries of Reynolds Metals and Jamaica Aluminumum Co. because I believe there was a direct relationship before Jamaica went independent. Reynolds was the big owner of the Jamaican bauxite

mines down there. This would be one of the things I think we

should deal with.

Second, Mr. Chairman, they talk about the need of 20 million tons and talk about 13 raw materials that are needed and necessary out of some 42 or 43. Well, if this administration is concerned with building up the stockpile, I would like to see a long-term program laid out by this administration, so that we would have the specified ships so required. This would attract companies and investors in this country, who by having long-term charters, would invest in building the types of ships necessary to move that type of product. I still dispute their word that we don't have the necessary ships today. Out of those 20 bulk ships we have left, most are able to move that bauxite to other storage sites, including Louisiana. There are a lot of places. I know, for myself, they can stockpile in Mobile.

And in finishing, bauxite is like anything else; if you put water on the top of it, it hardens like a piece of glass. It's like a sheet over it. The dust underneath will not get out from under there. It forms a layer—several inches think—and so it becomes self-containing without dust flying away from it once it's done. So I think

this should be looked into.

Thank you very much.

I am prepared to answer any questions.

The CHAIRMAN. Thank you, Mr. Drozak. I don't have any questions. I certainly want to assure you that this committee is concerned about the next shipment and is determined to see that the American shipping industry gets their fair share.

Does counsel have any questions? Mr. Seifert. Just one, Mr. Chairman.

I note in your statement, Mr. Drozak, toward the end you indicate that you find some merit in the staff proposal for "a government-impelled cargo act" revision. In distributing this at the direction of the chairman to interested people within the maritime community, one of the remarks most frequently made is that this may be a good proposal but this is not the time. Do you believe that this is the time?

Mr. Drozak. I believe the time is now. It should have been yesterday. We have a lot of problems and unless—let me just say this: On that matter and other matters dealing with maritime, unless Congress acts, and acts fast relative to some form of cargo promotion or at preserving what is presently on the books, I look to see within the next year or two that you will not have an Americanflag merchant marine left. They will be completely foreign-flag and we will be completely dependent on other nations, and oftentime hostile nations at that, to deliver our exports and imports.

Mr. Seifert. Thank you, Mr. Drozak. Thank you, Mr. Chairman. Mr. Drozak. I want to again thank you and your committee for the excellent work you have done. You will continue to always

have our full cooperation.

Thank you.

The CHAIRMAN. Thank you.

Our next witness is Mr. Herbert Brand.

STATEMENT OF HERBERT BRAND, CHAIRMAN, ACCOMPANIED BY PETER LUCIANO, EXECUTIVE DIRECTOR, TRANSPORTATION INSTITUTE, WASHINGTON, D.C.

Mr. Brand. Good afternoon. With me is Peter Luciano, executive director of the Transportation Institute. Our institute is a research and promotion organization whose members consist of about 175 companies engaged in deep-sea foreign commerce and the inland water activities of the United States.

Mr. Chairman, we have a very brief statement here, which we will submit for the record. I think that most of the points have been made rather clearly by all parties concerned, and so we will reduce our remarks to perhaps a few comments and observations. I think it is a very sad commentary indeed that after four decades of consistent shrinkage of the American-flag fleet to the point where we now carry but 3.6 percent of our foreign commerce, we are sitting here discussing the reasons for a Federal agency having violated the law and the intent of the law which this Congress felt was essential to the national interests.

I am talking about the Public Law 664 and I am talking about the cargo preference provisions of the laws of our land. We are talking about a law of our land and a Government agency having

violated that law.

We sit here in a spirit of helplessness, because we have gone through this month in and month out, year in and year out. Still ringing in my ears is the ruckus that was caused by the Department of Transportation back perhaps in 1977, when that agency deliberately, in spite of the fact that American-flag operators had sought to carry German-made buses into this country, on a U.S. Government funded program, DOT awarded the carriage of that cargo to Russian-flag ships. And this committee, again, came to the fore and prevented that situation from recurring, which, I might submit, would have recurred if it had not been for this committee.

What do we do about this other than beat our breasts and come forward every time the law has been so violated? I submit that perhaps what GSA has done is illegal. They have not carried out what is a clear definition of this law, that at least 50 percent of Government-impelled cargo should go on American-flag ships. And I question whether the Congress ought not to consider whether it should

allow payment to be made for illegal transactions.

In my view, the transaction has a rather odious character. I think that if anybody who sought to be objective about this, and would look at the facts, beginning with the time that the GSA issued the request for proposals on the 28th of December and asked for them to be returned by the 30th of September, would have caught immediately the fact that there was a design to this thing. And the fact that the people from whom the cargo was purchased are going to do the carrying to their own facility, I think at the very least requires some examination.

And GSA did it all by itself. And I am rather shocked by the fact that the Maritime Administration, which is empowered with enforcing the maritime laws and protecting the maritime fleet of this

Nation, refused to act on our behalf in this instance.

I think the position it took was weak and deferential, and that MarAd failed to carry out its responsibility as to the requirement, if you will, that the law be observed instead of nodding in rather sad confirmation of what GSA had done.

Moreover, I think that the General Services Administration in its desire to complete this deal, ignored the fact that the President of the United States has called for the implementation of the cargo preference laws by all of the Federal agencies. Likewise, the Secretary of Transportation himself has done the same thing. Either the General Services Administration wished to ignore the President's call for use of American ships, or they do not take him seriously. Or the call was not made seriously.

Mr. Chairman, I think that without the Congress of the United States, as Mr. Drozak has pointed out previously, that we would see the absolute dissolution and disintegration of the American merchant marine in short order. I think the opportunity was here to help our merchant shipping. What we have heard here was a situation that involves a number of agencies seeking to evade U.S.

policy.

This was a U.S. Government activity, and these various government components involved had it within their responsibility to sit down and find a solution as-to how that law was carried out, rather than to offer lame excuses about the configuration of the vessel, or the fact that it lacked a certain facility for handling it in a way

they thought it should.

The situation in which our country finds itself today is the result of this kind of lack of cooperation, of common will, and I think until the Congress provides some kind of a guideline that makes it impossible for them to do this kind of thing, that it will go on and on and on because they can carry these violations and subterfuges out without any fear of retribution. I would call upon you to consider examining the possibility of not paying for those kinds of activities, at least not providing Federal funds for activities which are in violation of the law.

Thank you very much.
The CHAIRMAN. Mr. Brand, it is nice having you here this after-

noon. Mr. Luciano, do you care to say anything?

Mr. Luciano. To add one comment, I think everyone in the mari-time industry is very appreciative of the very difficult and strenu-ous efforts that you and the members of the staff of this committee have exerted on this particular issue, among many others.

The problem, I think, is a very fundamental one; that is, that the Congress, some 30 years ago, enacted this piece of legislation, and at a time when there are many other legislative efforts that require your attention its fundamentally unfair to ask the Congress

to both enact the legislation and police it.

I believe there are many Federal agencies sitting out there watching this whole process going on, as they have for some time, and I believe many of them are convinced that they can wear down the efforts of the Congress in behalf of the maritime industry and the national interest simply by setting these brushfires on a monthly basis. As long as your attention has to be chewed-up, putting out brushfires like this, the larger matters of the national interest will go unattended in this area.

I think that until that situation is corrected, all of your very fine efforts are going to ultimately be dismantled. So we would urge, as Mr. Brand has said, that some device be established that will untie your hands and free you from the policing job that you have been forced to undertake in recent years.

[The prepared statement follows:]

## STATEMENT OF THE TRANSPORTATION INSTITUTE

Mr. Chairman and members of the committee, the Transportation Institute is a research and educational organization representing 174 companies operating U.S.-flag vessels in our nation's domestic, Great Lakes and international trades. Our member companies are deeply committed to the maintenance of a strong merchant fleet beneficial to the American economy and our national defense. Therefore, we are committed to vigorous adherence to existing statutes enacted by the Congress to

The Institute would like to commend the Committee for holding this hearing to examine the scheduled carriage of 1.2 million long dry tons (LDT) of Jamacian bauxite purchased for the national defense stockpile. We would also like to thank the Committee for permitting us the opportunity to express our views on this issue of

deep concern to U.S.-flag vessel operators.

The issue today is a very simply one. As the members of the Committee know, Public Law 664 requires that "whenever the United States shall procure, contract for, or otherwise obtain for its own account . . . any equipment, materials, or commodities, within or without the United States . . . the appropriate agency or agencies shall take such steps as may be necessary and practicable, to assure that at least 50 per centum of the gross tonnage . . . shall be transported on privately owned United States-flag commercial vessels, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. . . ." Therefore, at least 50 percent of this strategic material should be transported on U.S.-flag vessels.

Regrettably, American-flag vessels have been precluded from participation in this carriage by a federal government agency who should in effect by the enforcer of the

In issuing the request for proposals, the General Services Administration requested a vessel with self-unloading capabilities on the grounds that it was required for conditions of discharge at the Port Gregory, Texas, receiving facility, to which the bauxite is to be stockpiled. Several U.S. flag companies responded to the proposal, bauxite is to be stockpiled. Several U.S.-flag companies responded to the proposal, offering either delivery to alternate stockpile sites or discharge at the Port Gregory facility by substitute methods. These companies were Equity Carriers, Inc., New York Navigation Company, Inc., Gulf Coast Transit Company, Becker Industries Corporation and Teekay Shipping Company, Inc. The details of these suggested alternatives are contained in the testimony of Equity Carriers and the Temple, Barker and Sloane study and other documents which have been submitted to the Committee. Nevertheless the General Services Administration contracted for the carriage of the bauxite by foreign-flag vessels.

Conditions being what they are in this country generally, we find it disgraceful that a U.S. government agency as seen fit to ignore national policy supported by

Conditions being what they are in this country generally, we find it disgraceful that a U.S. government agency as seen fit to ignore national policy supported by each Administration and Congress since passage of Public Law 664 in 1954. This is the nub of the problem. In 1982, after four decades of decline, we are now at the point where we carry a mere 3.6 percent of our foreign trade on U.S.-flag vessels, a factor which should be of concern to all U.S. government agencies. Moreover, the President has announced his intention to develop a maritime program that would insure the U.S. merchant marine of its legal entitlement under existing statutes. Nevertheless the General Services Administration obviously is neither impressed with the low new the President's intentions.

with the law nor the President's intentions.

Here was an opportunity that existed within the Administration to demonstrate good faith toward the industry, and to implement the President's stated objective. Someone in the Executive Branch should have insisted that at least fifty percent of the bauxite transaction be carried on U.S.-flag ships in compliance with the law.

With all the rhetoric about improving the condition of the American merchant marine, and with all the experience we have had with recalcitrant government agencies who have failed to carry out the terms of the cargo preference laws, we are still wrestling with this problem. Ringing in our ears is the ruckus that was caused by the Department of Transportation's contract to carry government funded, German-made buses aboard Soviet vessels in 1977.

Government agency after agency continues to refuse to implement the law as Congress intended. The Executive Branch, which is responsible, generally looks the other way when its agencies ignore the law. Unless there is some penalty or enforcement provision, there will continue to be disregard for the law.

Laws such as Public Law 664 are designed to insure that the U.S.-flag merchant fleet will be of adequate size and strength to serve our nation in peace and war. It is therefore imperative that the Congress take strong action to prevent the efforts of any government agency which attempts to disregard the law.

The Transportation Institute is deeply grateful to the Committee for its constant vigilance with regard to adherence to the law by federal agencies. We know that the Committee has considered various options to put "teeth" into Public Law 664. The Institute supports any initiative by the Committee that would provide a penalty for evasion of Public Law 664. We thank the members of the Committee for their work and pledge our continued cooperation in your efforts to strengthen the Americanflag merchant fleet. Thank you.

The CHAIRMAN. Thank you, sir.

At this point I would like to ask unanimous consent to include as an appendix to the record certain correspondence and memos relating to this issue.

The information follows:

U.S. House of Representatives, COMMITTEE ON MERCHANT MARINE AND FISHERIES. Washington, D.C., June 3, 1982.

To: Members, Committee on Merchant Marine and Fisheries. From: Walter B. Jones, Chairman.

Re Jamaican bauxite hearing.

On June 7, 1982; at 1:30 p.m., the Committee will meet to conduct an oversight hearing on the application of the cargo preference laws to the recent purchase by the General Services Administration and Commodity Credit Corporation of 1.6 million tons of Jamaican bauxite for the National Defense Stockpile.

The issue is whether GSA effectively precluded the participation of U.S.-flag vessels in transporting 50 percent of the bauxite by imposing restrictive transporting and unloading requirements. The requirements are such that only certain foreignflag vessels can currently meet them. Attached is a chronology of events concerning the bauxite transaction, a legal analysis of the application of cargo preference, and other explanatory materials that may be helpful.

As you know, this Committee is charged with making sure that the cargo preference and other explanatory materials that may be helpful.

ence laws are properly administered and obeyed. Your attendance at the hearing will insure that the Committee can effectively carry out this important oversight

responsibility.

## [Memorandum]

U.S. House of Representatives, COMMITTEE ON MERCHANT MARINE AND FISHERIES Washington, D.C., June 3, 1982.

To: Members, Committee on Merchant Marine and Fisheries. From: Committee staff.

Re Jamaican bauxite transaction.

## NATIONAL DEPENSE STOCKPILE

The Strategic and Critical Materials Stock Piling Act, Public Law 96-41, 50 U.S.C. 98-100a, establishes and governs the National Defense Stockpile. The stockpile is intended to serve the interest of national defense only and is not to be used for economic or budgetary purposes. The 90 materials in the National Defense Stockpile are insurance against a dangerous and costly dependence upon foreign sources of these materials during a national emergency.

The Federal Emergency Management Agency (FEMA) has been delegated the authority, vested by the act in the President, to decide which materials, and what quantity and quality, are necessary for the stockpile. The General Services Administration (GSA) has been delegated the responsibility for procuring and storing the

materials.

The act currently requires the stockpile to have enough of each material to supply the country for three years. President Carter changed the time period from one year to three years, thereby necessitating an increase in materials stored in the stock-pile. President Reagan in a March, 1982, report to Congress, contemplates changing

to a five-year stockpile time period.

With President Carter's change to a three-year goal, FEMA initiated a study of which materials needed to be increased. As a result, the United States purchased cobalt from Zaire-the first major stockpile purchase in over 20 years. GSA states that at least 50 percent of the cobalt from Zaire moved on U.S.-flag vessels, in compliance with the Cargo Preference Act.

#### BAUXITE

Bauxite exists in several different grades and varieties. Involved in the transaction under consideration by the Committee is metal-grade Jamaican-type bauxite, which is a finely granulated, reddish material. It is the primary raw material used in the production of aluminum, a major component of our industrial base, and is used extensively in most modern weapons systems. According to FEMA, the United States needs 21 million tons of Jamaican bauxite in the stockpile. We presently store 8.8 million tons, and 1.6 million is under acquisition from Jamaica; therefore, an additional 10.6 million tons are to be acquired in future transactions.

#### STRUCTURE OF THE TRANSACTION

The United States will pay for the 1.6 million tons of Jamaican bauxite in three ways: (1) cash for approximately 0.8 million tons; (2) exchange of excess stockpile materials for 0.4 million tons; and (3) barter of dairy products for 0.4 million tons. Two contracts are involved, both executed on February 25, 1982, one between GSA and Jamaica's Bauxite and Alumina Trading Company (BATCO), covering the cash payments, exchange of excess stockpile materials, and all transportation and han-

payments, exchange of excess stockpile materials, and all transportation and nandling provisions; and another between the Commodity Credit Corporation (CCC) and BATCO covering the barter for dairy products.

GSA will pay cash for about two thirds of its bauxite. The remaining one third will be purchased by transferring title to BATCO of certain excess stockpile materials. GSA will then sell these materials as BATCO's agent, credit the proceeds to BATCO's account, then receive a two percent commission. Delivery of the bauxite under the GSA contract must occur between March 1 and September 30, 1982. The CCC contract calls for bauxite delivery between July 15 and September 30, 1982; and for delivery of the dairy products in exchange between May and December,

With respect to the tarter of dairy products, CCC will exchange 7,238 metric tons of nonfat dry milk, priced at \$1,190 per ton, and 1,905 metric tons of anhydrous milkfat, priced at \$2,625 per ton. The values assigned to these commodities approximate the world prices when the contract was signed. The domestic prices, however, were much higher: about \$2,100 and \$4,600 per ton, respectively.

## CHRONOLOGY

March 13, 1981—The White House and FEMA announce a \$100 million acquisition program for the stockpile, citing cobalt and bauxite as some of the materials

November 17, 1981—GSA letter to Reynolds requesting stockpile storage informa-

November 19, 1981-Reynolds responds to GSA that its aluminum facility at Gregory, Texas, can accommodate at least 1.5 million more tons of stockpiled beuxite. Letter concludes: "As you may be aware, we do have a Marine Division and operate a fleet of ore ships for transport of bauxite between Jamaica and the U.S. Gulf Coast. I am sure that our Marine Division would be interested in talking to someone in the government concerning a contract to haul Jamaican bauxite for stockpile.

November 23, 1981—Reynolds letter to GSA providing details of storage site and indicating that lease to government would be same as existing leases, i.e., \$1 per year for the 20 care tract.

year for the 20 acre tract.

November 24, 1981—President Reagan and FEMA announce decision to purchase 1.6 million tons of Jamaican bauxite through payment and barter arrangement, at cost of \$55 million.

December 4, 1981—GSA letters to House and Senate Armed Services Committees pursuant to section 6(d)(1) of Strategic and Critical Materials Stock Piling Act, waiving competitive acquisition requirement of that act—to permit Jamaica to be sole source for bauxite—and asking that Committee's waive 80-day notice requirement. December 9, 1981-House and Senate Armed Services Committees waive 30-day notice on sole source for bauxite.

December 9, 1981-OMB (Stockman) letter to DOT (Lewis) requesting revision of cargo preference regulations to make act only applicable to foreign aid exports, not

imports.

December 22. 1981—Reynolds letter to GSA detailing Reynolds' bauxite handling and pollution control facility at Gregory, Texas. Letter describes Reynolds' fleet of four self-discharging vessels, adding, "We do not know of any other available ships which are compatible with the dust collection systems at the loading and discharge facilities."

December 22, 1981—Meeting among GSA, MARAD, FEMA. GSA desires to use only Reynolds' foreign-flag ships. MARAD opposes, saying transaction covered by Public Law 664 and that U.S. flag ships could be modified, within delivery period to fit Reynolds discharging facility, or other delivery sites could be used that don't require special discharging equipment.

December 28, 1981—GSA solicits bids from U.S.-flag operators to haul bauxite to

Reynolds facility at Gregory, Texas. Solicitation requires vessels to be virtually iden-

tical to Reynolds' ships.

some requesting more time or more information: (1) Dillingham Maritime Co.; (2) International Navigation Corp.; (3) Antares Chartering & Shipping, agent for New York Navigation Corp., (4) Charrier, Fettig, & Donalty, agent for Equity Carriers, Inc.; (6) Charrier, et al. agent for Becker Industries Corp.; (6) Pacific Cargoes, Inc., agent for Gulf Coast Transit Co.; and (7) Teekay Shipping Co. (dated January 6, 1982). December 30, 1981-11:00 a.m., solicitation period ends. Seven bids submitted,

December 31, 1981—DOT (Lewis) responds to OMB cargo preference letter that

regulations won't be changed in absence of administration policy shift.

January 6, 1982—MARAD letter to GSA: Bauxite transaction covered by Cargo Preference Act and regulations; US. flag ships must be used first; MARAD must concur in nonavailability of U.S. flag ships, unreasonableness of their rates, or using foreign-flag vessels first.

January 8, 1982—Chairman Jones telephones GSA (Markon) protesting GSA fail-

ure to consider use of U.S.-flag vessels.

January 13, 1982-Telephone conversation between Admiral Shear (MARAD) and Commissioner Markon (GSA) concerning use of U.S.-flag vessels. Markon states no

final decisions have been made.

January 28, 1982—Reynolds letter to GSA (in response to GSA inquiries) describing plan to transfer title of Reynolds' bauxite stored in U.S. to Jamaica for resale to GSA. Reynolds would then replace it with private purchases from (which would not be subject to cargo preference). Intent is to allow bauxite transaction to go forward

pending resolution of cargo preference issues.

February 6, 1982—GSA and OMB officials meet. Discussion includes increased cost of cargo preference compliance. OMB recommends that GSA come up with alternative proposal. GSA responds with transfer of title proposal outlined by Reyn-

olds on January 28, 1982

February 8, 1982-MARAD Acting Associate Administrator Lewis Paine, Jr., and GSA Commissioner Markon speak by telephone. Paine expresses view that title transfer proposal is clear attempt to avoid cargo preference and that unloading sites

other than Reynolds' facility at Gregory, Texas, have not been fully explored.

February 10, 1982—MARAD (Shear) and GSA (Markon) meet. Markon describes background of transaction and costs involved with and without cargo preference.

GSA proposes to allow foreign-flag shipments first, contrary to MARAD regulations, to give US.-flag vessels chance to refit to meet discharge requirements. GSA states that Corpus Christi port is unacceptable for environmental reasons. MARAD states that agreement with Jamaica should require Jamaica to contract with US.-flag ves-

sels within two weeks of signing bauxite contract.

February 16, 1982—MARAD (Shear) letter to GSA (Markon) summarizing February 10, 1982, meeting: (1) Bauxite contract to include 50 percent required use of U.S.-flag ships, solicited through public notice; (2) Foreign-flag ships may be used first, so long as no U.S.-flags are available; (3) Added cost of U.S.-flag ships to be paid by GSA; and (4) MARAD will review and concur in contracts with U.S.-flag

vessels.

February 24, 1982—GSA authorizes Reynolds to proceed with stockpile site prepa-

ration. Amendment No. 4 to 1961 lease agreement is discussed.

February 25, 1982—GSA solicitation of U.S.-flag vessels to carry bauxite. Two week period for responses. Vessels must have self-unloading equipment suitable for week period for responses. Vessels must have self-unloading equipment suitable for use at Reynolds' facility at Gregory, Texas. Bids received from: (1) Antares Chartering and Shipping Corp., agent for New York Navigation Co.; (2) Equity Carriers, Inc.; and (3) Atlantic Marine Agencies, Inc.

February 25, 1982—United States (GSA and USDA/CCC) sign contracts with Jamaica (BATCO) for bauxite acquisition by combination of cash and barter.

March 9, 1982—Amendment No. 4 to lease argeement for stockpile site (Government Storage Tract No. 10) at Reynolds' Gregory, Texas, plant.

March 18, 1982—GSA requests MARAD concurrence that no U.S.-flag vessels are

available.

March 26, 1982—MARAD concurs in GSA determination that no U.S. flag vessels are available but notes that "the selection of the storage site by GSA has effectively precluded the participation of U.S.-flag vessels. . . .

#### [Memorandum]

U.S. House of Representatives. COMMITTEE ON MERCHANT MARINE AND FISHERIES, Washington, D.C., June 3, 1982.

To: Members, Committee on Merchant Marine and Fisheries.

From: Committee staff.

Re application of Cargo Preference Act to Jamaican bauxite transaction.

## I. SUMMARY OF FACTS

On November 24, 1981, President Reagan ordered the acquisition of 1,600,000 long tons of Jamaican bauxite for the National Defense Stockpile. The Federal Emergency Management Agency (FEMA) is coordinating the transaction. The General Services Administration (GSA) is to acquire 1,200,000 tons of bauxite by a combination of cash purchase and exchange of excess stockpile materials, and the Department of Agriculture's Commodity Credit Corporation (CCC) is to barter surplus agricultural commodities for the remaining 400,000 tons. Accordingly, on February 25, 1982, GSA and CCC each executed separate contracts with the government of Jamaica, represented by the Bauxite and Alumina Trading Company (BATCO), for acquisition of their respective portions of the bauxite. Both contracts set a purchase price

of \$32.50 per long dry ton, with delivery to be completed by October 1, 1982.

The GSA contract, which governs shipping and related costs, obligates BATCO to arrange all transportation and handling of the bauxite, for which GSA will pay \$9.74 per ton. GSA will pay cash for about two-thirds of the bauxite it acquires. The balance will be exchanged for excess stockpile materials, which GSA will sell as

BATCO's agent and credit the proceeds, less a two percent commission, to BATCO. To acquire its 400,000 tons, CCC has agreed to barter 7,238 metric tons of nonfat dry milk, priced at \$1,100 per ton, and 1,905 metric tons of anhydrous milkfat, priced at \$2,625 per ton. The values assigned to these commodities represent the world prices when the contract was signed, but are far below the domestic prices of about \$2,100 per ton for nonfat dry milk and \$4,600 per ton for anhydrous milkfat. Because CCC does not maintain supplies of anhydrous milkfat, the amounts of this commodity to be hetered to Jameics were numbered by CCC on the domestic commodity to be bartered to Jamaica were purchased by CCC on the domestic market.

#### II. ISSUES

A. Whether the Cargo Preference Act, Public Law 83-664, 46 U.S.C. 1241(b), applies to the importation of Jamaican bauxite for the National Defense Stockpile, when the bauxite was procured by (1) cash payments frrom GSA; and (2) barter of surplus agricultural commodities.

B. Whether the Cargo Preference Act applies to the exportation of surplus agri-

cultural commodities to Jamaica in exchange for bauxite.

## III. CONCLUSIONS

A. The Cargo Preference Act applies to the importation of Jamaican bauxite for the National Defense Stockpile, thereby requiring at least 50 percent of it to be shipped on United States-flag vessels, irrespective of whether the bauxite is procured by cash payment or barter of agricultural commodities.

B. Despite legitimate arguments to the contrary, the Cargo Preference Act does apply to the exportation of agricultural commodities to Jamaica in exchange for

#### IV. DISCUSSION

The Cargo Preference Act states, quite simply, that "(w)henever the United States shall procure, contract for, or otherwise obtain for its own account . . . any equipment, materials or commodities," then United States-flag vessels shall transport at least half of the goods procured. 46 U.S.C. 1241(b)(1). The Maritime Administration regulations promulgated pursuant to the act similarly define "cargoes subject to the Cargo Preference Act of 1954" as any "equipment, materials or commodities: (1) Procured contracted for or otherwise obtained. Procured, contracted for or otherwise obtained... for the account of the United States." 46 C.F.R. 381.2(b)(1). Neither the statute nor the regulations makes any exception for materials procured pursuant to Presidential Directive or for materials procured by exchange or barter. In fact, the language is quite broad and inclusive, making the law apply whenever the United States procures, contracts for, or otherwise obtains any goods.

In this case, the United States, through GSA and CCC, clearly has contracted for

the procurement of, and obtained, Jamaican bauxite for its own account—the National Defense Stockpile. Any argument that the Cargo Preference Act does not apply to the bauxite shipments is contrary to the plain and unequivocal statutory

language and wholly without merit.

Whether cargo preference applies to the exportation of commodities in exchange for bauxite is less clear. For the act to apply, the exported goods must be "furnish(ed) to or for the account of any foreign nation, without provision for reimbursement." 46 U.S.C. 1241(b)(1); see 46 C.F.R. 381.2(b)(2). None of the other statutory or regulatory provisions even arguably applies. In the absence of judicial decisions, and after a thorough review of the legislative history, the Attorney General in 1963 construed the phrase "without provision for reimbursement" to include in 1905 construed the phrase "without provision for reimbursement" to include sales "made pursuant to a program the purpose of which is in substantial part to assist the economy of the country to which the commodities are exported and where, consequently, the terms of the sale are more favorable to the purchaser than they would be in a normal business transaction . . . ." 42 Op. Atty. Gen. 203, 214 (1963). In the same opinion, the Attorney General indicated that, absent any loans, advances, or guarantees by the United States, the Cargo Preference Act did not apply to "purely commercial transactions," meaning a "program designed to dispose of the goods on the best possible terms and conditions." Id.

Since the entire thrust of the bauvite deal, from its inception has been to sid the

Since the entire thrust of the bauxite deal, from its inception, has been to aid the Jamaican economy, the only remaining question is whether the terms of the exchange are more favorable to Jamaica than they would be in a "normal business transaction," or, differently phrased, whether the goods are to be exported "on the best possible terms and conditions." Essentially, the question is whether Jamaica is paying, and the United States receiving, fair market value for the exported com-modities. The answer is complicated by the existence of two distinct markets for the goods in question—the domestic market and the world market. With respect to the nonfat dry milk and anhydrous milkfat involved here, the domestic market price is respectively \$1,000 and \$2,000 per metric ton higher than the world price.

The argument against application of cargo preference is that Jamaica must pay the fair world market value for the goods it receives in exchange for bauxite. Had Jamaica purchased these goods from anyone else on the world market, it would have paid the same price. Thus, the transaction is a normal, purely commercial business deal—the terms are equal to those Jamaica could negotiate with any other

world trader.

The contrary argument—that cargo preference does apply—is based on the fact that the United States paid substantially more for the commodities to be exchanged than it will receive from Jamaica. The CCC contract values the nonfat dry milk at \$1,100 per metric ton. The domestic price, however—the price CCC paid for the milk under the dairy price-support program—is approximately \$2,100 per ton. In fact, the CCC contract provides that if Jamaica fails to export any part of the nonfat dry milk or allows it to reenter the United States, the price of that portion will automatically rise to the "domestic unrestricted use price of \$2,280 per metric ton." Article XIII, Paragraph 13.2. Similarly, CCC purchased the anhydrous milkfat on the domestic market for about \$4,600 per metric ton, while the contract price is \$2,625. This was done, as noted above, because anhydrous milkfat is not a surplus commodity maintained by CCC. Thus, on each ton of nonfat dry milk and anhydrous milkfat bartered to Jamaica, the United States is losing about \$1,000 and \$2,000 respectively. Using these round figures, the total losses on this transaction are \$7.2 million for the nonfat dry milk and \$3.8 million for the anhydrous milkfat.

the nonfat dry milk and \$3.8 million for the anhydrous milkfat.

Obviously, sales resulting in losses of this magnitude are not customarily and voluntarily engaged in by normal businesses. Clearly, the exportation of these goods to Jamaica is not designed "to dispose of the goods on the best possible terms and conditions." 42 Op. Atty. Gen. at 214. It is, however, made "in substantial part to assist the economy of the country to which the commodities are exported," id., and, consequently, very favorable terms were given to Jamaica. From this perspective, the exportation of nonfat dry milk and anhydrous milkfat to Jamaica in exchange for bauxite meets all of the criteria outlined by the Attorney General as requiring the application of cargo preference.

Arguments may be made on each side of this question. Nevertheless, to the extent that the United States is losing money by furnishing commodities to Jamaica at less

that the United States is losing money by furnishing commodities to Jamaica at less than cost, United States taxpayers are subsidizing the transaction. The taxpayers have a right, codified in the Cargo Preference Act, to recoup at least part of their subsidy to Jamaica by insisting that the commodities exported be carried on United

States-flag vessels.

The CHAIRMAN. First of all, I want to thank all of the witnesses

for being here this afternoon.

It is disappointing that this hearing had to take place. The cargo preference statute is the law of the land; yet, some agencies apparently view it as a challenge to be overcome or a hurdle to be avoided.

Let us hope that the administration's recent policy statement in favor of the cargo preference laws helps. But I fear that executive agency hostility to cargo preference laws is too ingrained to be swayed by a mere policy statement. After all, the Director of the Office of Management and Budget has urged an interpretation of the law clearly at odds with the plain words of the statute and the obvious congressional intent.

It is clear that at least two U.S.-flag operators were anxious to carry this bauxite. It is also clear that, but for the restrictive terms set by GSA, these operators would have had a fighting chance to

secure some of this cargo.

GSA has not convinced me today that it made a good-faith attempt to comply with the letter and spirit of the cargo preference

First, it apparently entered into preliminary discussions for the bauxite purchasing assuming that foreign-flag ships would be used for transportation, even though it knew from the cobalt and Chinese bauxite deals that the cargo preference law applied.

Second, only after intervention by MarAd and Members of Congress did GSA acknowledge that the cargo preference law con-

trolled this purchase.

Third, even after admitting that the cargo preference law applied, GSA participated in, and possibly initiated, a proposed scheme to avoid the law by restructuring the sale. This was nothing but a subterfuge. It shows GSA's hostility to the law and bad faith in its attempt to comply with it.

Fourth, GSA refused requests by U.S.-flag operators to meet to

discuss ways of complying with the cargo preference law.

Finally, the restrictive port and discharge terms set by GSA effectively killed any chance of U.S.-flag participation. And GSA knew, or should have known this, when it set those terms and refused to modify them. No one has been able to show that any ships other than the Reynolds vessels can now meet the terms of the solicitation. And GSA has yet to document in any convincing way the

alleged environmental problems associated with use of the Corpus Christi port. MarAd's performance in this issue is open to question also.

First, once again, MarAd's participation began well after plan-

ning for this transaction was underway.

Second, although winning the battle on the principle that cargo preference applies, it lost the war by being unable to shake GSA from the restrictive terms. The committee wonders what responsibility MarAd has to fight such restrictions and to offer alternatives when those restrictions clearly nullify the cargo preference law.

Third, MarAd's letter to GSA was not worded in a way to preclude misinterpretation. GSA reads it as certifying that cargo preference was complied with since no U.S. ships were found to be

available; MarAd asserts another interpretation.

Fourth, MarAd has apparently failed to assert the application of the cargo preference law to the export of dairy products bartered for bauxite. Only by luck have these products moved on U.S.-flag ships, thereby avoiding another major controversy.

In summary, U.S.-flag ships should have had a real chance to carry some of this cargo. In reality, they didn't. An agency has ef-

fectively nullified the cargo preference law in this case.

Assuming there are additional purchases of Jamaican bauxite forthcoming, GSA has a chance to redeem itself by seeing that U.S.-flag ships carry that cargo until the deficiency of the present sale is made up. The committee urges such action in the strongest way.

Also, the committee will pursue the need to strengthen the cargo preference statute in order to deal with executive agencies which deliberately misinterpret it or which seek to avoid its effect by

clever manipulation.

This transaction seems to be symptomatic of deeper problems involved in the administration of the Government-impelled cargo transportation laws. This committee has, this session, spent a great deal of time exploring the cargo preference laws. I am directing the staff to prepare a report for the committee to present to Congress analyzing and making recommendations for improved administration of these laws.

Included in this report should be the draft legislation which the staff prepared and, at my direction, circulated among selected industry and governmental groups. We can no longer drift as we have, and with the administration's reinforcement of the validity of the preference concept in regard to Government-impelled cargo, it is timely that we move in the direction of changing those practices and laws which give rise to misinterpretation and easy avoidance.

In conclusion, let the record show I did not assume this chairmanship to be a pallbearer at the death of the American maritime industry. On the contrary, I aim to do everything possible to bring

new life into existence and its (maritime's) improvement.

Thank you for your attendance this afternoon. The committee stands adjourned.

[Whereupon, at 4 p.m., the committee adjourned.]